

7.3 Institutional Distinctiveness

After becoming Deemed to be University (under section 3 of the UGC act, 1956), one of the priorities of this institute is to excel in research and the vision for the future is to become a "Research Intensive University". Hence, the vision statement of this institute is rephrased in such a manner that this institute aspires to be a leader in research.

In addition, a separate Vision & Mission statements are laid down for the office of Research and an exclusive Dean (Research) and a team of other officers for research administration are nominated.

VISION & MISSION OF THE RESEARCH DIVISION OF THIS INSTITUTE

VISION

B. S. Abdur Rahman Crescent Institute of Science and Technology strives to be a "Research Intensive Institute" through various quality enhancement and sustainable initiatives

MISSION

- ❖ To offer Ph.D programme in all the Departments of this Institute
- ❖ To offer Research Fellowships (JRF & SRF) in all the departments to lure young talents
- ❖ To conduct periodical Review Meetings for research scholars to ensure quality
- ❖ To disseminate the research findings through publications, patents, consultancy etc.,
- ❖ To introduce innovative schemes to encourage quality research and to increase number of research publications
- ❖ To introduce a conducive ambience, so as to bring in a research culture in this institute

In order to enhance the quality of research work and the research output, several measures have been initiated, after becoming Deemed to be University.

- ❖ A research advisory committee comprising of external experts and a research board comprising of the Deans of all the Schools are constituted.

- ❖ All the research initiatives are presented in the research board and the Vice Chancellor's approval is obtained.
- ❖ Strict adherence to the UGC regulations of minimum standards & procedures for the award of Ph.D degree
- ❖ Research supervisors full time faculty members
- ❖ Code of ethics for research
- ❖ Evaluation of Ph.D thesis by a foreign & an Indian examiner
- ❖ No tolerance for plagiarism
- ❖ Exclusive Budget Allocation for R&D to all Departments & Research Centres
- ❖ Purchase of Equipment & Software for Laboratories & Research
- ❖ Travel Grants to present research findings in International / National Conferences
- ❖ Research Fellowships (JRF / SRF)
- ❖ Digital Library
- ❖ Turnitin – Anti Plagiarism check software
- ❖ Research Incentive Schemes
- ❖ Library works 350 days / year
- ❖ Member in National Knowledge Network (NKN) & AICTE – INDEST Consortium
- ❖ Tie up with INFLIBNET, MALIBNET, British Council, AIRC, SERC, IIT, Anna University Libraries
- ❖ Internet facilities (both wired & Wi-fi connection)

The code of ethics for research include check for plagiarism, usage of experimental data, ownership & access to data, criteria for authorship, order of authors, self-citations, avoiding duplicate publication, conflict of interest, copyright criterion, obligation to report (reporting suspected misconduct & correction of errors), responsibilities of a research investigator and responsibilities to funding agencies.

In order to incentivize the faculty members and to promote quality research, an innovative “Research Incentive Scheme” is introduced, in which, the research contribution of every faculty member is assessed, considering the Research Publications, Publication of Book, Collaborative Research Project with Foreign University, Generation of Research Grants & Patents. It will enable the faculty members to receive a cash award at the rate of Rs. 30,000/- for every credit earned. The details of the scheme is already presented elsewhere in this report.

The performance of this institute with respect to the research activities is presented below as a case of evidence :

Research Output :

❖ Scopus h-index of this Institution	: 43 (11 in the year 2008)
❖ Average citation index	: 5.667
❖ Total number of publications (as on 23 Sep 19)	: 4,986
❖ Number of Publications during 1984-2008	: 1,058
❖ Average Impact Factor	: 1.805
❖ Total number of Citations	: 8,176
❖ No. of Papers with more than 10 SCOPUS citations	: 201
❖ Research paper with highest SCOPUS citations	: 210
❖ No. of Ph.D degree awarded	: 90
❖ No. of sponsored projects (govt. agencies only)	: 80
❖ Grants received through sponsored projects	: Rs. 1,057 lakh
❖ No. of patents (filed & published)	: 10
❖ No. of start-ups incubated	: 16
❖ Revenue generated through consultancy	: Rs. 293.25 lakh
❖ Revenue generated through training programmes	: Rs. 237.49 lakh
❖ Books / Monographs / Book Chapter Published	: 50 / year

The majority of the sponsored research projects have been successfully carried out for the government agencies viz., DST, DBT, DRDO, DAE, CSIR, MoES, AICTE, UGC etc.,

A yet another research output of this institute is the establishment of "Crescent Innovation & Incubation Council (CIIC)", under "Section - 8, not for profit company" and registered under Indian Companies Act 2013. CIIC is acting as "One Stop Shop – Technology Business Incubator" (TBI) for start-ups of this institute. CIIC facilitates entrepreneurial & innovative ecosystem to all the stakeholders including the students, faculty, industry, investors and society at large. It is presently focusing on the disruptive technologies in the domains of Industry 4.0, Mobility Transportation & Life Sciences. CIIC has setup 25,000 sq.ft. state-of-art facility for start-ups. Recently, CIIC has been recommended for Rs.1.8 Cr BIONEST Incubator grant from Biotech Industry Research Assistance Council (BIRAC), Department of Biotechnology, Govt. of India. Because of systematic planning and effective execution, CIIC in a short period of time is currently incubating more than 25 start-ups.

To further enhance the research output, future plans are also envisaged and some of them are furnished below :

- ❖ To attract International Scholars to pursue quality research at this institute
- ❖ To offer Post Doctoral Programme in all the departments
- ❖ To achieve an h-Index of 100 in the next 10 years
- ❖ To become an institute of reputation with all faculty members having Ph.D. Qualification soon
- ❖ To initiate more Collaborative Research Work with premier universities both in India and abroad
- ❖ To create more centres of excellence for advance research studies
- ❖ Thus to make this institute into a Research Intensive one

FILE DESCRIPTION	DOCUMENT
Link for information	https://crescent.education/research/about-us/about-us/



Lr. No. 317 / Dean (AR) / 2016

Date: 11.03.2016

Annual Report for the year 2015-16:

PRELUDE:

As BSAU is aiming to become a “Research Intensive University”, the Vision and Mission statements are prepared accordingly and the same is given wide publicity among the Research Scholars and Faculty members.

In order to provide Policy guidelines and direction for the research activities, a Research Advisory Committee and Research Board are in place.

Periodical Conferences (International & National), Seminars, Workshops, Development Programmes, Training Programmes are conducted by the various departments of this university in the latest and upcoming Research areas

RESEARCH INCENTIVE SCHEME FOR THE FACULTY MEMBERS:

The Scope of the Research Incentive Scheme includes the following:

- To motivate faculty members to concentrate on Research related activities in addition to teaching, so as to publish research papers in refereed National and International Journals with high Impact Factor.
- To pursue efforts to write books, monographs for publication by National and International publishers of high repute.
- To establish Collaborative Research Projects with reputed foreign universities.
- To secure Funded Research Projects from various funding agencies both in India and Abroad.
- To undertake consultancy projects sponsored by both Government and Private, Industrial and other organizations.
- To obtain patents through original contributions by way of product developments.

This is an annual award and credits are ear marked for the above said categories. For each credit earned, a sum of Rs. 15,000/- will be paid. For fraction credits, the amount will be proportionally allocated. This is the fifth time, we are offering this award to our faculty members. The period under consideration is 1st July 2013 to 30th June 2014.

Sl.No.	Year	No. of Faculty	Amount awarded
I	2009-10	14	1,73,445
II	2010-11	19	2,22,086
III	2011-12	31	3,83,875
IV	2012-13	62	7,33,280
V	2013-14	59	5,61,063



1. NEW PROGRAMMES STARTED

Nil

2. VALUE ADDED PROGRAMMES STARTED

Nil

3. TRAINING PROGRAMMES OFFERED

- ❖ Mr. Rashmikant Joshi, Managing Director and Mr. Harish Nachnani, National Sales Manager, Festo Control Private Limited, Bangalore visited BSAU on 24th July, 2015 to present roadmap for establishing Industrial Automation and Controls Lab at BSAU and explore partnership initiatives between BSAU and Festo Controls Private Limited.



- ❖ A delegation of Students and Faculty from University Technology Mara, UiTM, Malaysia, visited B S Abdur Rahman University for a Student Exchange Program starting from 1st August, 2015 to 4th September, 2015 to learn best practices in teaching and research at our University.



- ❖ Indiana University Purdue University Indianapolis, IUPUI, USA Delegation Visited BSAU



- ❖ A six member delegation team from BSAU Visited Festo Global Production Centre, Inida



- ❖ Delegation From Festo Controls Private Limited, BANGALORE, Visited BSAU



➤ **ABET Accreditation**

- Dr. R. Raja Prabu, Dean (AR) attended a Workshop on “ABET Accreditation & Programme Assessment Workshop” at Chennai on 28.09.2015.

4. INTERDISCIPLINARY PROGRAMMES CONDUCTED

In order to take the research to the grass root level, an unique “Research Forum” is established.

The major focuses of Research Forum include the following:

- To bring in research ambience among the faculty members, research scholars and P.G. students
- To create an awareness regarding the research work carried out by fellow researcher in a department/school to facilitate collaborative research
- To motivate interdisciplinary research proposals to funding agencies
- To educate the research scholars about the facilities such as equipment, machineries, software etc. available in each department/school

- To enlighten the state-of-art technologies to scholars through special lectures on contemporary research topics by renowned experts in key areas
- To discuss recent hot research articles and to get innovative ideas for further research
- To develop strengths of existing researchers by conducting workshops on different hardware/software used to facilitate research

Several interdisciplinary research experiments are being pursued at our University and some of them are mentioned below, to highlight the same.

- Food preservation using high voltage pulses
- Outdoor polymeric Insulators
- Cancer treatment using “Pulsed Electric Field”.
- Biodegradable plastics
- Polymeric Nano Capacitors

5. CONFERENCES / FDP / SEMINARS / WORKSHOPS CONDUCTED

List of Guest Lectures arranged - Research Forum:

Sl. No.	Topic of the Guest Lecture	Name of the Speaker	Affiliation of the Speaker	Date
1.	Outdoor Polymeric Insulators	Dr. R. Raja Prabu	Prof. / EEE, Dean (Academic Research) and Advisor (Research Forum)	25.05.2015
2.	Electro Chemotherapy for effective Cancer Treatment	Dr. R. Raja Prabu	Prof. / EEE, Dean (Academic Research) and Advisor (Research Forum)	25.05.2015
3.	Impact of mycotoxins: Identification of molecular mechanisms by recombinogenic approaches and protection by small molecules	Dr. S. Hemalatha	Professor & Dean (School of Life Sciences)	25.05.2015
4.	Molecular imaging in disease	Prof. Ammasi	University of Virginia,	24.06.2015

	diagnostics	Periasamy	USA	
5.	Process Optimization using Swarm Intelligence	Dr. U. Sabura Banu	Professor / EIE	10.07.2015
6.	Salient Region Detection by Improving Image Clarity of Fused Images	Dr. B. Vijalakshmi	Professor / ECE	10.07.2015
7.	A New Approach to Fast Handover of Mobile Nodes in Wireless Network	Dr. V. Sankaranarayanan	Professor & Advisor FTA	29.08.2015
8.	Process Monitoring in Metal Cutting - An Overview	Dr. M. Murugan	Professor & Dean (School of Mechanical Sciences)	29.08.2015
9.	Design Thinking and Innovation	Ms. Yasmeen Fatimah	University of USA	10.09.2015
10.	Under Expanded Jets Issuing From Asymmetric Sonic Nozzles	<u>Dr. E. Rajakuperan</u>	Professor / Aerospace	18.09.2015
11.	Retrofitting of Structures Using Fibre Reinforced Polymer Composites	Dr. J. Revathy	Professor / Civil	18.09.2015
12.	Impact of Nanotechnology on Research in Science and Engineering	Dr. S.S.M. Abdul Majeed	Professor & Head / Polymer	30.10.2015
13.	Application Studies of Metal Oxide Nanoparticles on Organic Transformations	Dr. S. K. Rani	Professor & Dean (SPCS)	30.10.2015
14.	Towards the Next Generation of Biomarkers	<i>Dr. Samarjit Das</i>	John Hopkins University, USA.	17.12.2015
15.	Effect of atomic oxygen on spacecraft charging properties	<i>Dr. Noor Danish Ahrar Mundari</i>		06.01.2016
16.	Evaluation Of Oxygenated Diesel On Combustion And Performance Characteristics In A Diesel Engine	Dr. M.SUBRAMANIAN	Professor & Head / Automobile	13.02.2016
17.	Discrete Wavelet Transform for Image Processing	Dr. N. Nithiyandam	Professor Of Eminence	13.02.2016

To emphasize the quality aspects of Research, Periodical training / Workshop on March 2015. For eg. A one day workshop on “Quality Assurance in Academic & Sponsored Research” is conducted by Office of Dean (AR).

Sl. No.	Topic	Name of the Speaker
1.	Pursuing Research – An Overview	Dr. V. M. Periasamy
2.	How to write Good Research Papers?	Dr. V. Sankaranarayanan
3.	Funded Project & Sponsoring Agency	Dr. V. Murugesan
4.	Demo on “Grammarly” - Writing Support Tool & “Turnitin” – Plagiarism Check	M/s. Bridge People
5.	Effective Usage of Library for Research	Dr. S.S.M. Abdul Majeed
6.	General Mathematical Tools for Research	Dr. M. Murugan
7.	Research Metrics in Quality Research	Dr. R. Raja Prabu

6. CONFERENCES / FDP / SEMINARS / WORKSHOPS ATTENDED

- GE Research at Bangalore with Chairman & Registrar on May 2015
- Workshop at ABET on Sep 2015
- ACU on Oct 2015
- Workshop at NIRF on Dec 2015

7. PAPERS PUBLISHED/ PRESENTED IN JOURNALS & CONFERENCES FOR THE PERIOD JAN 2015 to DEC 2015

National Conference	International Conference	National Journal	International Journal	Total
118	190	98	219	625

8. DETAILS OF PUBLICATION IN NATIONAL & INTERNATIONAL JOURNALS & CONFERENCES:

B.S.A.U. RESEARCH PUBLICATIONS STATISTICS FROM JAN 2015 TO DEC 2015						
S. No.	Department	2015				GRAND TOTAL
		INJ	NJ	INC	NC	
1	Aerospace	3	0	0	0	3
2	Architecture	3	0	0	0	3
3	Automobile	1	0	2	0	3
4	CSE	30	9	20	2	61
5	Civil Engineering	12	14	4	28	58
6	CBS	10	3	1	3	17
7	CA	8	2	14	3	27
8	Chemistry	11	10	3	6	30
9	ECE	30	20	35	12	97
10	EIE	7	2	22	6	37
11	EEE	10	4	13	5	32
12	English	10	4	2	3	19
13	SSSH	2	0	0	1	3
13	IT	6	1	10	6	23
14	Mathematics	11	5	9	9	34
15	Mechanical	13	6	3	12	34
16	Physics	33	4	1	1	39
17	Polymer Technology	4	1	2		7
18	Library	8	8	2		18
19	School of Life Sciences	5	5	34	14	58
20	School of Islamic Studies	2	0	13	7	22
	GRAND TOTAL	219	98	190	118	625

9. DETAILS OF IMPACT FACTOR OF THE PUBLICATION H-Index

a) RANGE	:	0.204 – 9.284
b) AVERAGE	:	1.67
c) h-INDEX	:	28
d) NO. IN SCOPUS	:	4.104

10. SPONSORED RESEARCH (ONGOING / APPLIED)

N O.	TITLE OF THE PROJECT	NAME OF THE PRINCIPAL INVESTIGATOR	FUNDING AGENCY	PERIOD	GRANTS SANCTIONED (RS. IN LAKHS)
1	A non enzymatic enantioselective design in the Wittig reactions and its application in the total synthesis of caprolactonis potential antineoplastic agents of marine origin	Dr. S.Mahasampath Gowri Prof. of Chemistry	DST	2012-16	624000
2	Seismic retrofitting of prestressed concrete beams externally bonded with fibre reinforced polymer composites	Dr. J. Revathy Prof. of Civil Engineering	DST	2012-15	1704000
3	A novel access to indolizidine and quinolizidine alkaloids through stereoselective N-tethered intramolecular cyclopropanation of pyridines	Dr. J.Elangovan Prof. of Chemistry	DST	2012-15	4870000
4	Wear behavior of duplex coated steels	Dr.R.Rajendran Prof. of Mechanical Engineering	UGC-DAE	2012-15	760200
5	Design of zeozymes as biomimetic catalyst for the treatment of organic pollutants	Dr.D.Easwaramurthy Prof. of Chemistry	CSIR	2013-16	1513000
6	Development of COF/polyimide composites with low dielectric constant for microelectronic applications	Dr. P. Revathi Prof. of Chemistry	DST	2013-16	2350000
7	Investigation of chaotic and strange non-chaotic phenomena in coupled non linear circuits and systems	Dr. I. Raja Mohamed Dept. of Physics	SERB - DST New Delhi	2013-16	3246000
8	Preparation of rare-earth doped molybdate nanostructures using soft chemical route for optoelectronic applications	Dr. J. Thirumalai Dept. of Physics	SERB - DST New Delhi	2013-16	2364000

9	Diastereoselective Intramolecular Cyclopropanation of Enol Ethers derived from Aminoacids : A Novel Access to Aza-C-Glycosides.	Dr. J. Elangovan Dept. of Chemistry	CSIR	2013-16	1300000
10	Seismic Performance of FRP Confined Steel tube in-filled Concrete Columns	Dr. P. Gajalakshmi Dept. of Civil Engg.	Ministry of Earth Sciences, New Delhi	2014-17	2910090
11	Applications of Gold Catalysis For The Synthesis Of Bioactive Heterocyclic And Natural Product Mimic	Dr. K.Karthikeyan Dept. of Chemistry	DST	2014-17	1966000
12	Bismuth titanate quantum dots for photo voltaic application	Ms. R. Saai Harini Res. Scholar, Dept of Chemistry	Women Scientist Scheme - DST	2014-17	1254000
13	Synthesis, characterization and optimization of QDs on TiO ₂ surface for quantum dot solar cells	Dr. M. Asha Jhonsi Asst. Prof. of Chemistry	INSA - INSPIRE	2014-17	1976000
14	GPX-1, gene polymorphisms and mitochondrial Ros signaling in cancer risk	Dr. Soumen Bera Asst. Prof. of Life Sciences	SERB - DST	2014-17	2470000
15	Synthesis of Novel Low Band Gap Polymer Materials for Solar Cell Applications	Dr. Vajjiravel Murugesan Prof. of Chemistry	SERB	2014-17	2378000
16	The Effect of Al on TiAlN, CrAlN and ZrAlN coating using RF powered Magnetron Sputtering	Dr. Beer Mohamed Prof. of Mechanical Engg.	UGC-DAE - CSR Fellowship	2014-15	264300
17	Development of Oil Absorbing Polymer Product for Efficient Removal of Oil Spills in Sea Water	Dr. R. Vasanthakumari Director, Polymer Nano Technology Centre	NRB	2014-16	2004000
18	Development of Graphene - SrTiO ₃ based hybrid photocatalytic system for the production of solar fuels	Noor Aman Ahrar Mundari Prof. of Chemistry	SERB	2014-17	2498000
19	"Synthesis and characterization of multiferroic nanocomposites for functional applications"	Ms. P. Komalavalli	Women Scientist Scheme (WOS-A)	2014-17	1419000
20	Identifying the molecular basis of peroxidase activity of Peroxiredoxin 6 - An approach for designing Antioxidant Peptides and Inhibitors	Dr. Md Khurshid Alam Khan Asst. Prof. of School of Life Sciences	SERB - Startup Research Grant	2014-17	1430000

21	To Study the Effect of Diclofenac and Osmolytes on Protein Stability in Renal Dysfunction	Dr. Shazia Jamal Asst. Prof. of Life Sciences	DST - SERB	2014-17	1360000
22	Antioxidant gene polymorphisms and mitochondrial Ros signaling in cancer risk	Dr. Soumen Bera Asst. Prof. of Life Sciences	Ministry of Science & Technology Department of Biotechnology	2015-18	2475000
23	Investigation of Multiferroic properties of rare earth and transition metal doped bismuth ferrite for functional applications	Dr. I. Shameem Banu Prof. of Physics	DST - SERB	2015-18	2355300
24	Synthesis of antimicrobial nanoemulsions for the treatment of multi-drug resistant ESKAPE pathogens	Dr. Karthikeyan Ramalingam Asso. Prof. of School of Life Sciences	SERB Start up Grant	2015-18	2328000
25	Immunosuppressive cells within inflammatory Tumor Microenvironment	Dr. Neesar Ahmed Asst. Prof. (Sr. Gr.) of School of Life Science	SERB Scheme for Startup Research Grant	2015-18	2266000
GRAND TOTAL					50084890

11. SPECIAL RESEARCH LABORATORIES CREATED

Respective departments have furnished

12. BOOK PUBLISHED

Enclosed as attachment (Annexure I)

13. PATENTS (OBTAINED / APPLIED)

Enclosed as attachment (Annexure II)

14. INTERNATIONAL VISIT (ACADEMIC RESEARCH)

NIL

15. ACHIEVEMENTS OF STAFF

Sl. No.	RRN No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor
1	0992201	Teaching Technical Writing Skills Using Web 2.0 Technology – An Experimental Study	Ms. H. Sofia	Dr. R. Revathi
2	0986201	Cellular Automata and Geometric Models for Propagation of Tsunami Waves	Mr. E. Syed Mohamed	Dr. S. Rajasekaran
3	0981201	BIO FUELS – Optimization of Biodiesel Production from Pongamia Pinnata, experimental investigation on the combustion characteristics and finding a suitable additive to improve the combustion	Mr. R. Sathish Kumar	Dr. K. Sureshkumar
4	0980201	Sustainable Transportation Planning	Ms. K. Yogeswari	Dr. E. Rasul Mohideen
5.		Coverage based test case prioritization for regression testing	Dr. N. Prakash	Dr. T. R. Rangaswamy
6.		Studies on decolonization of tannery waste water	Dr. S. Shamshath Begum	Dr. N. Vedarama
7.		Front impact analysis and improvement on a basis mounted bus body structure	Dr. P. D. Jeyakumar	Dr. G. Devaradjane
8.		Some investigations on numerical simulation of photo detectors for future generation optical communication system	Dr. M. Kabeer	Dr. V. Rajamani

16. ACHIEVEMENTS OF STUDENTS

➤ Outcome of Research Scholars

❖ Ph.D Degree from B.S.A.U.

- Thirteen Ph.D. scholars were awarded degree during the Fifth Convocation held on 12.10.2015. The details of the awarded scholars are as follows:

Sl. No.	RRN No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor
1	1190212	Investigations of Optical, Structural, Antibacterial and Photocatalytic Properties of Doped ZnO Nanostructures	Mr. Ashaq Hussain Shah	Dr. M. Basheer Ahamed
2	1084205	Least Mean Square Error Based Block Truncation Coding For Image Compression	Ms. Chandravadhana	Dr. N. Nithyanandam
3	0992201	Teaching Technical Writing Skills Using Web 2.0 Technology – An Experimental Study	Ms. H. Sofia	Dr. R. Revathi
4	0986201	Cellular Automata and Geometric Models for Propagation of Tsunami Waves	Mr. E. Syed Mohamed	Dr. S. Rajasekaran
5	1184211	Enhancement of Cache Performance in Multi-Core Processors	Mr. S. Muthukumar	Dr. P. K. Jawahar
6	1090206	Growth and Characterization of Nonlinear Optical 4-APMP, Amino acids doped NaAP and DGBCM Single Crystals	Mr. G. Marudhu	Dr. S. Krishnan
7	0990201	Growth and investigation of third order nonlinear optical properties of pure and doped Meta-Nitroaniline, potassium di Chromate (KDC), L-alanine (LA) single crystals	Mr. T. Thilak	Dr. M. Basheer Ahamed
8	1190209	Synthesis and Luminescence Properties of Rare-Earth Doped Molybdate Micro/Nanostructures for Display Applications	Mr. R. Krishnan	Dr. J. Thirumalai
9	1090203	Preparation and Characterization of Technologically important materials using pulsed laser deposition method (Thin Film)	Mr. G. Shanmuganathan	Dr. I. B. Shameem Banu
10	1086211	Fast Handoff in Wireless Network	Mr. K. Regin Bose	Dr. V. Sankaranarayanan
11	0981201	BIO FUELS – Optimization of Biodiesel Production from Pongamia Pinnata, experimental investigation on the combustion characteristics and finding a suitable additive to improve the combustion	Mr. R. Sathish Kumar	Dr. K. Sureshkumar
12	0982202	Studies on Development and Characterization of Polypropylene Based Biocomposites.	Ms. N. Jayachitra	Dr. R. Vasanthakumari
13	0980201	Sustainable Transportation Planning	Ms. K. Yogeswari	Dr. E. Rasul Mohideen

❖ **Sample Photos taken during Vth convocation held on 12.10.2015**



❖ **Ph.D Degree from other universities**

- Four faculty members who were pursuing Ph.D in Anna University were awarded Ph.D degree during this period. The details of the awarded scholars are as follows:

Sl. No.	Name	Dept.	Supervisor Name	Title/Topic Research
1.	Dr. N. Prakash	IT	Dr. T. R. Rangaswamy	Coverage based test case prioritization for regression testing
2.	Dr. S. Shamshath Begum	Polymer	Dr. N. Vedarama	Studies on decolonization of tannery doge waste water
3.	Dr. P. D. Jeyakumar	Mechanical	Dr. G. Devaradjane	Front impact analysis and improvement on a basis mounted bus body structure
4.	Dr. M. Kabeer	IT	Dr. V. Rajamani	Some investigations on numerical simulation of photo detectors for future generation optical communication system

❖ **Viva-Voce Exam completed**

- One Ph.D. scholar Mr. M. Dakshnamoorthy has completed the Viva Voce Examination on 10.02.2016 and is awaiting for the convocation

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Viva Voce	Title/Topic Research
1.	Mr. M. Dakshnamoorthy	Polymer	0982205	Dr. R. Vasanthakumari	10.02.16	Nanocomposite for electrode application

❖ **Thesis Submitted**

- Four Ph.D. scholars have submitted their Thesis

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Submission of Thesis	Title/Topic Research
1.	Mr. V.K. Mohan Raj	CSE	1086218	Dr. R. Shriram	18.09.15	Power Aware Models for Cloud Computing
2.	Ms. Jainab Zareena	CBS	1093211	Dr. Haider Yasmeen	27.11.15	Employability status of the students studying in Technical Institutions: A comparison of Affiliated colleges, Private and Government Universities of Tamil Nadu.
3.	Mr. T.R. Tamilarasan	Mech	1181211	Dr. R. Rajendran	16.12.15	Study of Electro Deposition Process on Nickel Composite Coating
4.	Mr. L. Kanniappan	Chemistry	1391141	Dr. D. Easwaramoorthi	25.01.16	Kinetics and Mechanism of VO^{2+} and Cu^{2+} ions Catalyzed oxidation of Amino acid by Peroxomonosulphate

❖ **Synopsis Submitted**

- Three Ph.D. scholars have submitted their Synopsis

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Submission of Synopsis	Title/Topic Research
1.	Mr. K. Devarajan	Chemistry	1091207	Dr. S. Bhagavathi	25.03.15	Polymer blends and alloys
2.	Ms. Fouzul Hidayah	CSE	0986203	Dr. Angelina Geetha	25.01.16	Algorithms for Implementing Strategies to Detect and Mitigate Web Application Vulnerabilities
3.	Mr. A. John Peter	Physics	1190211	Dr. I. B. Shameem Banu	02.03.16	Crystal Growth

❖ **Ready for Synopsis Submission**

- Seven Ph.D. scholars are recommended for Synopsis submission after Pre Synopsis Review Committee meeting

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Title/Topic Research
1.	Ms. S. Murugeswari	ECE	1084206	Dr. S. Kaja Mohideen	Digital Signal Processing
2.	Ms. G.S. Annie Grace Vimala	ECE	1084208	Dr. S. Kaja Mohideen	Image Processing
3.	Mr. J. Salai Thillai Thilagam	ECE	1084210	Dr. P. K. Jawahar	Wireless Communication
4.	Mr. S.A.Usman Ali	Islamic Studies	1188201	Dr. P.S. Syed Masood Jamali	A Concept of Plural Society in Quran and Hadeeth
5.	Mr. Pervaiz Iqbal	Mathematics & AS	1289215	Dr. P. S. Sheik Uduman	Job sequencing problem by heuristics algorithm
6.	Mr. Md. Izhar Ashraf	CA	1294213	Dr. K. M. Mehata	Network analysis of symbolic sequences with application to linguistic and biological data
7.	Mr. S.K. Lakshmana Prabu	EIE	1385103	Dr. U. Sabura Banu	Optimal Control of MIMO process using swarm intelligence

17. DEVELOPMENTAL ACTIVITIES

Nil

18. INDUSTRY / INSTITUTE COLLABORATION

Nil

19. SOCIETY ACTIVITIES

Nil

20. MoUs SIGNED

Nil

21. EXTENSION ACTIVITY CONDUCTED

Nil

22. IMPORTANT VISITORS

Nil

ANY OTHER INFORMATION

- ❖ The Meeting of the 24th & 25th Research Boards were held on 22.06.2015 & 12.01.2016 respectively and the highlights of the same are furnished below:

➤ **Highlights of the 24th Meeting of the Research Board**

❖ **Revision of Publication requirements for Approved Supervisorship.**

- After discussing the agenda item in detail, the Research Board decided to recommend to the Vice Chancellor, the following amendment in the Ph.D Regulation 2009, Clause 7.1. The applicant for recognition as Supervisor, shall satisfy the following:

I. Shall be a full time working member of this University.

II. Shall possess a Ph.D. Degree.

III. Shall have a minimum of two publications to his / her credit in refereed journal(s).

❖ **To conduct Ph.D admissions twice a year, i.e. during Jan & July of every year.**

- After discussing this agenda item in detail, the Research Board decided to recommend to the Vice Chancellor to bring back the practice of organizing the Ph.D admissions, two times a year, i.e., during Jan & July of every year, starting from July 2015.

❖ **Revision of B.S.A.U. Fellowship amount.**

- After detailed discussions, the Research Board requested the Dean (Academic Research) to prepare a suitable proposal, taking into account the various fellowships schemes available both in Government and Private organizations for getting the approval from our Vice Chancellor.

➤ **Highlights of the 25th Meeting of the Research Board**

❖ **BSAU Fellowship – Certain Guidelines**

- It is decided to implement all the guidelines with effect from 1st Jan 2016 and resolved to institute 57 fellowships for BSAU as the number of department have been increased from 14 to 19. The required financial approval may be obtained by the registrar.

❖ **Creation of Central Research Facilities**

- It is resolved to establish the Central Research Facilities for BSAU.

➤ **Significant Statistics**

- ❖ More than 124 faculty members of BSAU are recognized as “Approved Supervisors” for guiding the research scholars of this University.
- ❖ 213 faculty members of BSAU are pursuing Ph.D research in various universities.
- ❖ 173 candidates were admitted into Ph.D programme of our university during July 2015 & January 2016 session(s).
- ❖ As on date, 469 research scholars are pursuing research in our university in various research topics.
- ❖ Currently, there are 30 Junior Research Fellows and 05 Senior Research Fellows are pursuing research in our university.
- ❖ In addition, government research fellowships like Maulana Azad research fellowships were awarded to four of our research scholars. Also, one CSIR fellowship, five fellowship through DST project, one fellowship through SERB project, one fellowship through UGC-NET and one fellowship through Rajiv Gandhi Fellowship are awarded to our research scholars.
- ❖ All the departments have conducted the meeting of the progress review for this semester and the minutes were submitted to the office of Dean (AR).

➤ **Research Incentive Scheme**

- ❖ Circulars were sent to all the faculty members to submit their claims for their Research performance for the period of 1st July 2014 to 30th June 2015 under Research Incentive Scheme. We have received 71 claim forms for the Research Incentive Scheme and the scrutiny process is in progress.

➤ **Open House Exhibition**

- ❖ Open House Exhibition was conducted during 16-17 October 2015 in B.S.A.U. campus for the benefit of PG students who are looking for Ph.D admission in B.S. Abdur Rahman University.
- ❖ Significant research outputs were displayed at the stall and necessary informations were provided to the visitors.

➤ **Quarterly analysis of Research Publications**

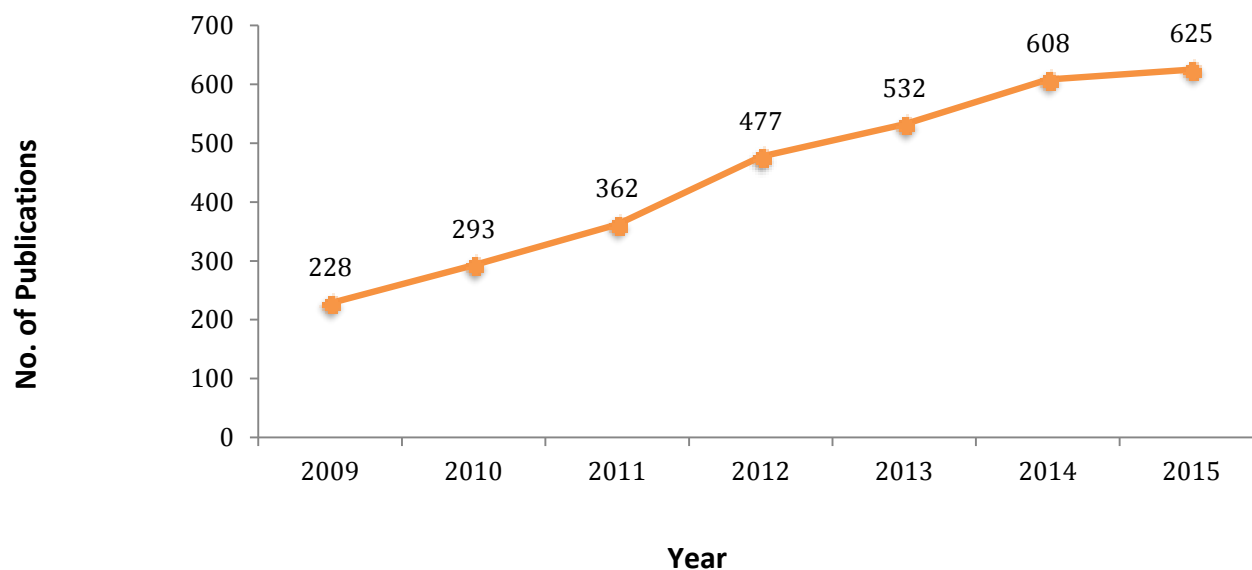
- ❖ It has been a practice of the Office of Dean (Academic Research) to collect the details of Research Publications (INJ, NJ, INC, NC) of the faculty members for our university database once in 3 months, i.e., every quarter and make a analysis of the same.
- ❖ The criteria to be considered for the analysis include the following:
 - Consolidation of research publication for 3 months
 - Publication trend
 - Citations trend
 - h-Index analysis

➤ **An overview of the Research publications of University as of Dec 2015 is given below:**

❖ Total no. of Research Publication	= 3350
❖ No. of Publications for the period 1984 – 2008	= 1055
❖ No. of Publications for the period 2009 – Dec 2015	= 3125
❖ Total number of faculty	= 366
❖ Total no. of publications of the faculty	= 4180
❖ No. of publications per faculty	= 11(= 4180 / 366)

PUBLICATION TREND

(after becoming university)



(i) Details of Indexed Publications (As on 31.12.2015)

Parameter	Category	
	Journals	Conferences
Total number of publications	1,416	1,709
Indexed	1,012	238
Non-Indexed	404	1,471
Indexed Percentage	%	%

(ii) Details of Peer Reviewed publications (As on 31.12.2015)

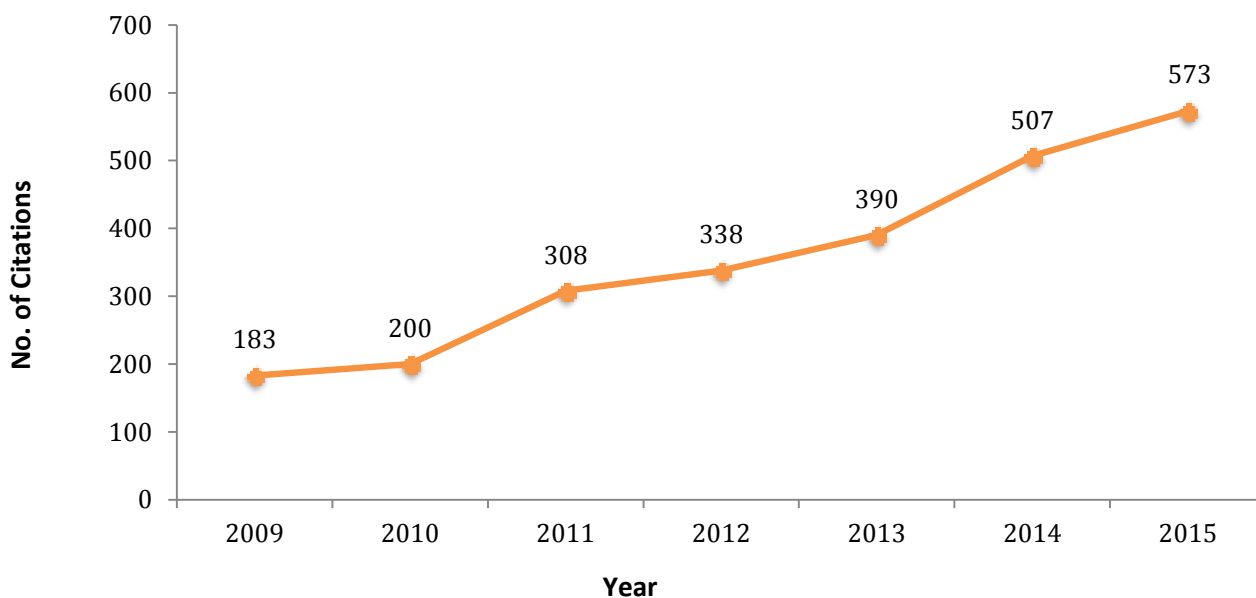
Parameter	Category		Total
	Journals	Conferences	
Total number of publications	1,416	1,709	3,125
Scopus	447	133	580
WOS	194	0	194
IEEE	4	113	117
Google Scholar	874	205	1,079

EBSCO Host	45	0	45
Overall	2,980	2,160	5,140

(iii) Citation Trend: (As on 31.12.2015)

- ❖ Total no. of citations as on 31.12.2015 = 3932
 - No. of citations from 1984 – 2008 = 1440
 - No. of citation from 2009 – 2015 = 2499
- ❖ Average Citation Index as on 31.12.2015 = 4.104
- ❖ Average Impact Factor of Publications = 1.67

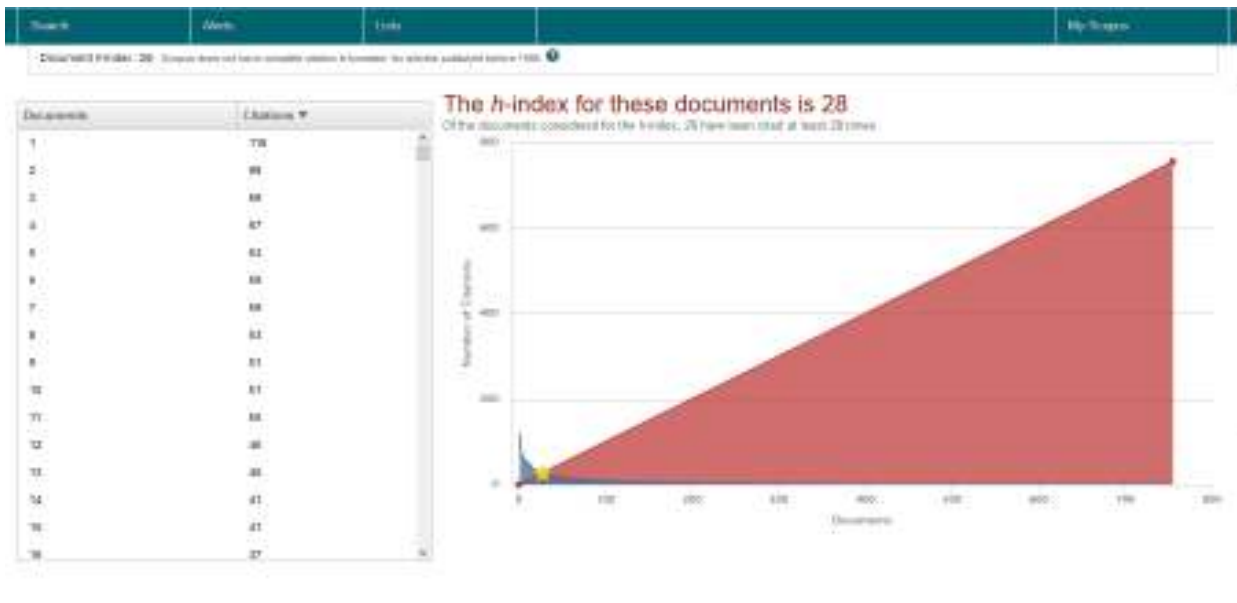
CITATION TREND
(after becoming university)



➤ **Scopus h-index of B.S.A.U.**

- ❖ The SCOPUS h-index for the research publications of our university is grown to 28, indicating the University's strong foot hold in research.

Scopus h-index of B.S. Abdur Rahman University (As on 31.12.2015)



DEAN (ACADEMIC RESEARCH)

Enclosures: Annexure I & Annexure II



Lr. No. 430 / Dean (AR) / 2017

Date: 06.04.2017

Annual Report for the year 2016-17

PRELUDE:

As BSAU is aiming to become a “Research Intensive University”, the Vision and Mission statements are prepared accordingly and the same is given wide publicity among the Research Scholars and Faculty members.

In order to provide Policy guidelines and direction for the research activities, a Research Advisory Committee and Research Board are in place.

Periodical Conferences (International & National), Seminars, Workshops, Development Programmes, Training Programmes are conducted by the various departments of this university in the latest and upcoming Research areas.

1. RESEARCH INCENTIVE SCHEME FOR THE YEAR 2014-15:

The Scope of the Research Incentive Scheme includes the following:

- To motivate faculty members to concentrate on Research related activities in addition to teaching, so as to publish research papers in refereed National and International Journals with high Impact Factor.
 - To pursue efforts to write books, monographs for publication by National and International publishers of high repute.
 - To establish Collaborative Research Projects with reputed foreign universities.
 - To secure Funded Research Projects from various funding agencies both in India and Abroad.
 - To undertake consultancy projects sponsored by both Government and Private, Industrial and other organizations.
 - To obtain patents through original contributions by way of product developments.
- ❖ This is an annual award and credits are ear marked for the above said categories. For each credit earned a sum of Rs. 15,000/- will be paid. For fraction credits, the amount will be proportionally allocated. This is the sixth time, we are offering this award to our faculty members. The period under consideration was from 1st July 2014 to 30th June 2015. This year (2016), a cash award of Rs. 6,27,300/- was presented to the faculty members in an

exclusive function, which was presided by our Chairman / Board of Management along with the presence of our Vice Chancellor & Registrar held on 22nd Oct 2016.

- ❖ Earlier circulars were sent to all the faculty members, to submit their claims for their Research performance, for the period from 1st July 2014 to 30st June 2015, under Research Incentive Scheme. We have received 71 claim forms for the Research Incentive Scheme.
- ❖ The details of the award are furnished in the following table.

Sl.No.	Year	No. of Faculty	Amount awarded
I	2009-10	14	1,73,445
II	2010-11	19	2,22,086
III	2011-12	31	3,83,875
IV	2012-13	62	7,33,280
V	2013-14	59	5,61,063
VI	2014-15	63	6,27,300



- ❖ Our Chairman wanted to reiterate the “significance of research contribution”, as well as to “encourage and motivate” our faculty members” and hence he announced an enhancement of incentive amount from Rs. 15,000/- (Rupees Fifteen Thousand Only) to Rs. 30,000/- (Rupees Thirty Thousand Only), for each of the credit earned by our faculty members under B.S.A.U., Research Incentive Scheme starting from next year.

2. An Award titled “**VELAYUTHA MUDALIAR TRUST’S AWARD – I**”, for the publication in the journals “NATURE” AND “SCIENCE”, is Instituted and the details of the award are furnished below:

- Name of the award : VELAYUTHA MUDALIAR TRUST’S AWARD

➤ Prize Money : Rs. 1,00,000/- (Rupees One Lakh only)

➤ Eligibility Conditions :

- Regular faculty members of B.S. Abdur Rahman University and Research Scholars of B.S. Abdur Rahman University alone are eligible for this award.
- The award is given only to the first author. (It is the discretion of the first author to share the award with the co-authors).
- If the first author is not a regular faculty member or a research scholar of this university, then that publication will not be considered for the award.
- The publication will be considered for the award only if the work carried out in the laboratories of BSAU and the publication carries B.S. Abdur Rahman University's affiliation.
- This award comes into effect for the articles published on or after 1st July 2015.
- The award is meant for publications only in "Nature" – ISSN : 0028-0836 / EISSN : 1476 – 4687 and in "Science" – ISSN : 0036 – 8075 / 1095 – 9203.

3. Another Award Titled "**VELAYUTHA MUDALIAR TRUST'S AWARD – II**", for the Research Publications with highest impact factor, is also Instituted and the details are given below.

- The Research Publication with highest impact factor, made in a calendar year is eligible.
- The impact factor (SNIP) furnished by Scopus alone will be taken in to consideration.
- Regular faculty members of B.S. Abdur Rahman University alone are eligible for this award.
- The award will be shared by the authors.
- If any author is not a regular faculty member or a research scholar of this university, then the award will not be shared by them.
- The publication will be considered for the award only if the publication carries B.S. Abdur Rahman University's affiliation.
- This award comes into effect for the articles published on or after 1st January 2016.

4. Study Abroad Program by IUPUI, USA

A delegation of 8 Students and 3 Faculty from IUPUI, USA, visited B. S. Abdur Rahman University for a Study Abroad Program during March 12-17, 2016 to learn the best practices in teaching and research at our University and the culture practices.



5. Purchase of SEM – a Central Research Facility:

- ❖ Action has been initiated for the creation of “Central Research Facilities” and strengthening the existing facilities, through addition of Research Equipment and Gadgets. In this connection, it has been decided to purchase Scanning Electron Microscope (SEM).
- ❖ In connection with the same, a technical presentation on the various features of SEM & FESEM was presented by Mr. Anotnin Doupal, Product Specialist, Czech Republic on 13.02.2017, another presentation by ZEISS on 22.03.2017 & another presentation by TESCEN on 02.09.2016.

6. NBA ACCREDITATION

- ❖ The following 5 programmes have been Accredited by NBA under Tier I Accreditation process, subsequent to the visit of Expert Team during 19-21 Aug 2016

S.No.	Name of the Programme	Accreditation Status	Period of validity	Valid upto
1.	B.Tech. (Computer Science & Engineering)	Provisionally Accredited	3 years	2018
2.	B.Tech. (Information Technology)			
3.	B.Tech. (Electronics & Communication Engineering)			
4.	B.Tech (Electronics & Instrumentation Engineering)			
5.	B.Tech (Civil Engineering)			

- ❖ The following 5 programmes have been Accredited by NBA under Tier I Accreditation process, subsequent to the visit of Expert Team during 15-17 April 2016

S.No.	Name of the Programme	Accreditation Status	Period of validity	Valid upto
1.	M.Tech. (Construction Engg. & Project Management)	Provisionally Accredited	3 years	2018
2.	M.Tech. (CAD / CAM)			
3.	M.Tech. (Power Electronics & Drives)			
4.	M.Tech. (VLSI & Embedded Systems)			
5.	M.Tech. (Information Technology)			

- ❖ Also, the Self Assessment Report of the following 3 Programmes have been already submitted and the Accreditation process is likely to take place during May 2017.

S.NO.	Name of the Programme
1.	B.Tech. (Mechanical Engineering)
2.	B.Tech. (Electrical and Electronics Engg.)
3.	M.Tech. (Electronics & Instrumentation Engg.)

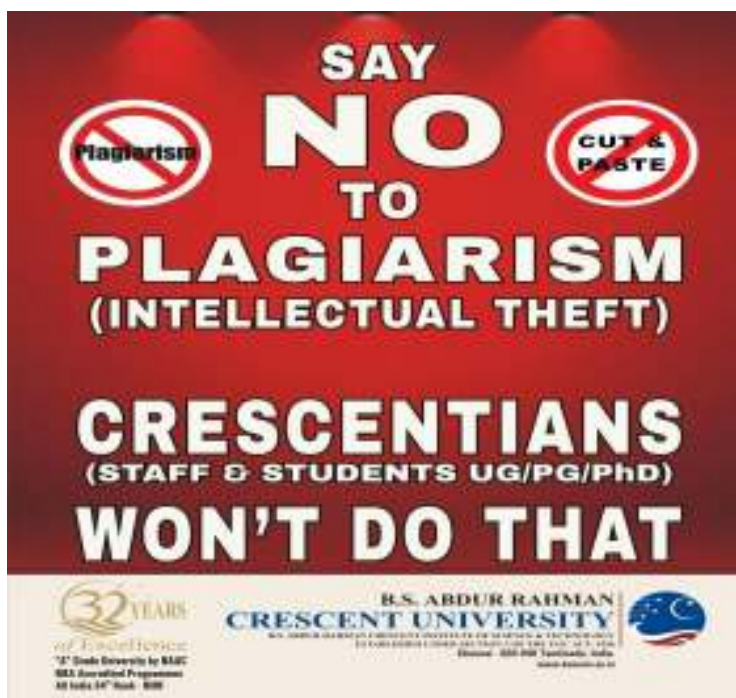
7. “Best Practices” Award to the Office of Dean (AR)

- ❖ Our University been awarded for the best practices in the “Academic Research” Category, instituted by ICT Academy during their Silver Jubilee Celebration. The Award was received by our Chairman / Board of Management & Dean (AR) in a function held at ICT Grand Chola, Chennai on 28th February 2017.



8. ANTI PLAGIARISM CAMPAIGN

- ❖ The culture of viewing plagiarism as an intellectual theft is to be inculcated to all our students (UG, PG & Ph.D.) and faculty members. With this as objective an extensive "Say No to Plagiarism" campaign has been launched by our University. Posters were distributed for creating awareness among students & staff and awareness Campaign were organized by all the departments of this University.



9. MoUs SIGNED

- ❖ MoU was signed between "B.S. Abdur Rahman University" and "University of Missouri, USA" during the recent visit by the Dean (AR) to US. The following specifics have been worked out to strengthen the collaboration between the two Universities.
 - Student Exchange
 - Faculty Exchange
 - Course on "Innovation" for the UG students School of Life Sciences
 - International Advisory Board (IAB)
 - Special Advisor for Research
 - Joint Conference / Seminar
 - Commercial Research

10. CONFERENCES / FDP / SEMINARS / WORKSHOPS CONDUCTED

(A) List of Guest Lectures arranged through Research Forum by the Office of Dean (AR) is given below:

Sl. No.	Topic of the Lecture	Name of the Speaker	Affiliation of the Speaker	Date
1.	Process Automation and Optimization	Dr. T.R. Rangaswamy	Professor / EIE & Dean (AA)	29.03.2016
2.	Design Teaching Learning Pedagogy	Prof. G. Jayalakshmi	Professor & Dean / Architecture	29.03.2016
3.	Fractional Calculus for Engineering Applications	Dr. Ganga Ram Gautam	Banaras Hindu University, Uttar Pradesh	29.04.2016
4.	Experimental facilities of the Centre for High Pressure Research and recent trends in superconductivity	Dr. S. Arumugam	Professor & Coordinator, Centre for High Pressure Research, Bharathidasan University	15.06.2016

(B) To emphasize the quality aspects of Research, Periodical training / Workshop is organized this year also, a similar workshop was organized during Dec 2-3, 2016 titled "Quality Assurance in Academic Research".

The details of the workshop is given below:

Sl. No.	Topic of the Lecture	Name of the Speaker
1.	Research – What and How?	Dr. V.Jagadeesh Kumar, Dean (Academic Courses), IITM
2.	Difference between course based education and research	Dr. Shreepad Karmalkar, Professor, IITM
3.	Converting Academic Research to Intellectual Property	Dr. M. Kanthababu, Director, Centre for IPR, Anna University
4.	Pursuing Academic Research – An overview	Dr. V. M. Periasamy

5.	How to write good Research Papers?	Dr. V. Sankaranarayanan
6.	Effective writing & presentation of the Research work	Dr. R. Ganesan, Former Advisor, BSAU
7.	Reporting the outcomes of Research	Dr. E. Raja Kuperan
8.	Modeling and Simulation	Dr. P. Kanagasabapathy
9.	Fellowship / Financial support for Research	Dr. V. Murugesan
10.	Data Analysis	Dr. M. Murugan
11.	Interaction with Dean (AR)	Dr. R. Raja Prabu
12.	E-Resources in Research	Dr. S. S. M. Abdul Majeed
13.	Design of Experiments	Dr. R. Sathish Kumar

11. CONFERENCES / FDP / SEMINARS / WORKSHOPS ATTENDED

- Dr. R. Raja Prabu participated in a Two Day workshop on “Inter University Research Collaborations”, organized by Association of Indian Universities (AIU) during 18th and 19th Nov 2016, at VIGNAN University, Guntur, Andra Pradesh.
- Dr. R. Raja Prabu attended “QS Summer School Summit” during 5-8 December 2016 at Chennai.
- Dr. R. Raja Prabu attended a workshop on "QS Seminar on University Rankings, Ratings and Other Strategies" on 9th March 2017 at MIT Art, Design and Technology University, Pune, India.

12. PAPERS PUBLISHED/ PRESENTED IN JOURNALS & CONFERENCES FOR THE PERIOD JAN 2016 to DEC 2016 (for the University)

National Conference	International Conference	National Journal	International Journal	Total
47	103	116	131	397

13. DETAILS OF PUBLICATION IN NATIONAL & INTERNATIONAL JOURNALS & CONFERENCES (Department wise for the Calendar year 2016):

B.S.A.U. RESEARCH PUBLICATIONS STATISTICS FROM JAN 2016 TO DEC 2016						
S. No.	Department	2016				GRAND TOTAL
		INJ	NJ	INC	NC	
1	Aerospace	3	1	-	-	4
2	Architecture	-	2	-	-	2
3	Automobile	3	7	1	11	22
4	CSE	8	21	8	1	38
5	Civil Engineering	5	5	4	4	18
6	CA	4	9	9	4	26
7	Chemistry	15	18	-	-	33
8	ECE	7	7	17	1	32
9	EIE	6	2	13	1	22
10	EEE	8	6	20	5	39
11	English	5	5	-	1	11
12	SSSH	1	-	-	-	1
13	IT	2	6	2	1	11
13	Management Studies	4	2	1	-	7
14	Mathematics	3	11	4	4	22
15	Mechanical	8	6	4	7	25
16	Physics	36	4	2	-	42
17	Polymer	3	2	1	-	6
18	Library	-	1	-	-	1
19	School of Life Sciences	9	1	8	4	22
20	School of Islamic Studies	1	-	6	3	10
21	PED	-	-	3	-	3
	GRAND TOTAL	131	116	103	47	397

14. DETAILS OF IMPACT FACTOR OF THE PUBLICATION and h-Index

- a) RANGE : 0.924 – 9.284
- b) AVERAGE : 2.201
- c) h-INDEX : 30 (i.e as on 31.12.2016)

15. ACHIEVEMENTS OF STUDENTS / SCHOLARS:

❖ Ph.D Degree from B.S.A.U.

- Seven Ph.D. scholars and Two M.Tech (By Research) were awarded degree during the Sixth Convocation held on 20.11.2016. The details of the awarded scholars are as follows:

Sl. No.	RRN No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor
1	0982205	Studies on Carbon nano tube and Graphene oxide reinforced polyimide electrospun nano fiber composites	Mr. M. Dakshnamoorthy	Dr. R. Vasanthakumari
2	1086218	Power Management Approaches for Virtualized Server Cluster Environment	Mr. V.K. Mohan Raj	Dr. R. Shriram
3	1181211	Effect of Surfactants on the Characteristics of Electroless Ni-P-Nano-TiO ₂ Composite Coatings	Mr.T.R.Tamilarasan	Dr. R. Rajendran
4	0986203	Algorithms for Implementing Strategies to Detect and Mitigate Web Application Vulnerabilities	Ms. Fouzul Hidayah	Dr. Angelina Geetha
5	1190211	Synthesis and Characterization of rare earth doped phosphors for lighting applications	Mr.A.John Peter	Dr. I. B. Shameem Banu
6	1391141	Kinetics and Mechanism of VO ²⁺ and Cu ²⁺ ions Catalyzed oxidation of Amino acid by Peroxomonosulphate	Mr. L. Kanniappan	Dr. D. Easwaramoorthi
7	1091207	Rearrangement of substituted Aryloxymethyl chromones and mechanistic investigation – Synthesis of Hydroxyhomoisoflavones and Homopterocarpan	Mr. K. Devarajan	Dr. S. Bhagavathi
8	1263201	Deduction of pilferage of energy using PLC signals of smart meters	Mr. D. J. Taniguevelane	Dr. K. N. Srinivas
9	1262206	Studies on Halloysite Nanotubes (HNT) Natural Rubber Nanocomposites for Mechanical, Thermal and Wear Properties	Mr. Anand Narayanan	Dr. R. Vasanthakumari



VIth convocation held on 20.11.2016

❖ Viva-Voce Exam completed

- Two Ph.D. scholars have completed the Viva Voce Examination and are awaiting for the convocation date.

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Viva Voce	Title/Topic Research
1.	Ms. S. Jainab Zareena	Management Studies	1093211	Dr. Haider Yasmeen	31.01.17	Employability Status of Engineering Students: A Comparison of Private Staff financing Engineering Colleges and Private Deemed Universities
2.	Mr.S.Vikram	Physics	1190208	Dr. R. Vasanthakumari	13.03.17	Synthesis, Suspension stability and Hydrodynamics of Iron Oxide Nanoparticles for Biomedical Application

❖ Thesis Submitted

- Fifteen Ph.D. scholars have submitted their Thesis and sent for evaluation

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Submission of Thesis	Title/Topic Research
1.	Mr. C.D. Nanda Kumar	Mathematics & AS	0989201	Dr. S. Srinivasan	19.10.16	Some Stochastic Models for Determination of Optimal Reserve Inventory

2.	Mr. M.G. Fajlul Kareem	Mathematics & AS	0989202	Dr. P. S. Sheik Uduman	30.12.16	Analysis of Nonlinear Mathematical Models of Tumor Growth
3.	Mr. M. Syed Masood	CA	0994201	Dr. P. Sheik Abdul Khader	06.03.17	Enhanced Routing and Queue Management Techniques for Performance Improvement in Mobile Ad hoc Networks
4.	Ms. P. Latchoumy	CA	0994202	Dr. P. Sheik Abdul Khader	25.03.17	Integrated Proactive and Reactive Failure Handling Strategies to improve the Services in Computational Grid
5.	Ms. G.S. Annie Grace Vimala	ECE	1084208	Dr. S. Kaja Mohideen	21.07.16	Analysis of Human Retinal Morphology for the Identification of Diabetic Retinopathy and Maculopathy using Fundus Images
6.	Mr. J. Salai Thillai Thilagam	ECE	1084210	Dr. P. K. Jawahar	13.10.16	Design and Analysis of Microstrip Fractal Antennas for Wireless Communication Appli
7.	Ms. P. Veeralakshmi	CSE	1086214	Dr. Latha Tamilselvan	17.03.17	Development of Confidentiality, Integrity, Authentication Model for Assuring Data Security in Cloud Computing
8.	Mr. Nadana Ravishankar T	CSE	1186220	Dr. R. Shriram	25.02.17	Grammar Rule based Sentiment Analysis Techniques for Tamil tweets Classification
9.	Mr. U. D. Benson	Polymer	1262207	Dr. S. S. M. Abdul Majeed	26.01.17	Natural Rubber/OMMT Nanocomposites for Reinforcement in Tyre Ply

10.	Ms. A. Divya	Mathematics & AS	1289214	Dr. P. S. Sheik Uduman	30.12.16	Analysis of Risk factors of Heart Disease Using Decagonal Fuzzy Models
11.	Mr. Pervaiz Iqbal	Mathematics & AS	1289215	Dr. P. S. Sheik Uduman	22.11.16	Mathematical Modeling, Performance Analysis and Optimization of Operating System of Paper Plant
12.	Ms. R. Sasikala	Chemistry	1291235	Dr. S. Kutti Rani	09.01.17	Synthesis, characterization and applications of rare earth metal loaded copper oxide nanoparticles
13.	Mr. G. Sridhar	Chemistry	1291238	Dr. I. Mohammed Bilal	21.03.17	Studies on the Synthesis, Characterisation and Antimicrobial Applications of Schiff Base Metal Complexes
14.	Mr. Mahalingam V	Physics	140903101003	Dr. I. Raja Mohamed	16.03.17	Synthesis and Characterization of Rare Earth Doped Molybdate and Tungstate Phosphors for Lighting Applications
15.	Mr. Kalim Abdul Rashid Mumtazz Deshmukh	Physics	140903104002	Dr. M. Basheer Ahamed	08.03.17	Graphene Oxide and Transition Metal Oxide Reinforced Flexible Polymer Composites as High Dielectric Constant Materials for Energy Storage Applications

❖ Synopsis Submitted

- Six Ph.D. scholars have submitted their Synopsis

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Date of Submission of Synopsis	Title/Topic Research
1.	Ms. Vidya Sathish	CA	0994203	Dr. P. Sheik Abdul Khader	25.03.17	Implementation of distributed mining Algorithm in distributed environment for privacy preserve
2.	Mr. S. Udhaya Kumar	CSE	1086210	Dr. Latha Tamilselvan	20.12.16	Adaptive trust model with attestation for software services in cloud environment
3.	Mr.Vijayakumar S	English	1192204	Dr. A. Shahin Sultana	30.12.16	Teaching Academic Writing to the Students of Engineering using Multimedia Tools an Experimental Study
4.	Mrs. Ruby Annette J.	IT	130873707001	Dr. W. Aisha Banu	14.02.17	A Multi Criteria Recommendation Engine for Cloud Renderfarm Services
5.	Ms. V.K. Subhashree	ECE	1384118	Dr. C. Tharini	02.03.17	Analysis on the Performance of Energy Efficient Routing and Fault-Tolerant Data Aggregation Algorithms for Wireless Sensor Networks
6.	Mr. Nazir Ahmad Mir	English	1392106	Dr. A. Shahin Sultana	14.02.17	Teaching English to the Children (Upper Primary Level) of Government Schools in Jammu and Kashmir State through Task-Based Approach: An Experimental Study

❖ Ready for Synopsis Submission

- Ten Ph.D. scholars are recommended for Synopsis submission after Pre Synopsis Review Committee meeting

Sl. No.	Name	Dept.	RRN	Supervisor Name & Designation	Title/Topic Research
1.	Mr. R. Jaya Prakash	Chemistry	0991205	Dr. D. Easwaramoorthi	Synthesis and characterization of imidazole derivatives
2.	Ms. S. Murugeswari	ECE	1084206	Dr. S. Kaja	Digital Signal Processing

				Mohideen	
3.	Mr. P. Gnanasekaran	IT	1087202	Dr. T. R. Rangaswamy	QoS based On-Demand Routing Protocol in Mobile Ad Hoc Networks
4.	Ms. Shreedevi G.	CA	1094205	Dr. M. Munir Ahamed Rabbani	Object Recognition and tracking in Video
5.	Ms.Saira Banu	CSE	1186223	Dr. R. Shriram	VOIP
6.	Ms.Shakkeera L	IT	1187204	Dr. Latha Tamilselvan	Design and implementation of efficient job scheduler for dynamic Service and Data Migration in Cloud Computing Environment
7.	Mr. A. Abdul Azeez Khan	CA	1194209	Dr. P. Sheik Abdul Khader	Knowledge Coding System
8.	Mr. Mohd Shahanbaj Khan	SLS	131153701003	Dr. S. Hemalatha	Role of Plant Programmed Cell Death and Autophagy in Pathogenecity Mechanisms
9.	Mr. S.K. Lakshmana Prabu	EIE	1385103	Dr. U. Sabura Banu	Optimal Control of MIMO process using swarm intelligence
10.	Ms. A. Sathiya Priya	Physics	1390118	Dr. I. B. Shameem Banu	Nano Composite Thin Films

16. ANY OTHER INFORMATION

❖ The 26th, 27th & 28th Meeting of the Research Board were held on 23.06.2016, 26.07.2016 & 30.08.2016 respectively and the highlights of the same are furnished below:

➤ Highlights of the 26th Meeting of the Research Board

❖ Maternity Leave for woman Research Scholars.

Regulation Clause 11.5 :

Woman Research Scholar may avail Maternity Leave / Child Care Leave, once in the entire duration of Ph. D, for a maximum period of 240 days. This period of leave shall not be accounted in the duration of the program.

❖ Maximum duration for woman Research Scholars

Regulation Clause 10. 4 :

However, a relaxation up to a maximum of two additional years shall be provided for (i) Women Research Scholars and (ii) Male and Female research scholars with More than 40% Disability.

❖ Additional Fellowship of Rs. 2,000/- for JRF / SRF Women Research Scholars.

I. An additional Fellowship of Rs. 1,000/- for JRF & SRF Women Research Scholars shall be awarded in order to promote the Women Research Scholars, in line with our Founder Chairman's Vision.

II. This shall be implemented, for the Women Research Scholars who are awarded BSAU Fellowship on or after 01.07.2016.

❖ Revision of norm for the Number of Ph.D. Scholars per Supervisor.

- Number of Ph. D scholars per Supervisor is revised as follows an effect from 01.01.2017.

Professor	:	8	Research Scholars
Asso. Professor	:	6	Research Scholars
Asst. Professor	:	4	Research Scholars

❖ Revision of Publications Requirement for the submission of Ph.D. synopsis (Publishing in paid Journals).

Regulation Clause 18.2 :

The synopsis shall be accepted only when the Research Scholar has at least two research papers, either published or accepted for publication in Peer Reviewed, Refereed Journals, Indexed by SCOPUS / Web of Science, which are accepted without any Publication Fee

❖ Instead of 4 (four) courses to be credited, it may be amended as 12 credits or more.

Regulation Clause 14.2:

As a part of the Research work, the Scholar needs to pursue PG Level Courses and a minimum of 12 credits need to be earned, including a course on Research Methodology. The other courses, shall be relevant to the area of Research and recommended by the respective Doctoral Committee.

Regulation Clause 14.3 A:

If at all, the courses prescribed by the Doctoral Committee including the Directed Study course are either not available or not offered by the Department, under such

circumstances, the Scholar may be permitted to pursue the Unavailable Courses either from NPTEL or from any other OCW which conducts the required examination and issue a certificate for the credits earned by the candidate. Such courses shall be limited to One

➤ Highlights of the 27th Meeting of the Research Board

Regulation Clause 7.0 :

7.0 RECOGNITION OF SUPERVISOR

7.1 The applicant for recognition as supervisor shall satisfy the following

- (i) Shall be a full time regular faculty member of this University,
- (ii) Shall possess a valid Ph.D. Degree
- (iii) Shall have at least five research publications to his / her credit in refereed journals, if the applicant is a regular professor.

(or)

Shall have at least two research publications to his / her credit in refereed journals, if the applicant is a regular Associate / Assistant Professor.

- ❖ The revised period of Reckoning for the award of credits, under Research Incentive Scheme, will be “Calendar Year” hereafter.

➤ **Other Significant Statistics**

- ❖ More than 122 faculty members of BSAU are recognized as “Approved Supervisors” for guiding the research scholars of this University.
- ❖ 186 faculty members of BSAU are pursuing Ph.D research in various universities.
- ❖ 77 candidates were admitted into Ph.D programme of our university during July 2016 & January 2017 session(s).
- ❖ As on date, 502 research scholars are pursuing research in our university in various research topics.
- ❖ Currently, there are 30 Junior Research Fellows and 08 Senior Research Fellows are pursuing research in our university.
- ❖ In addition, government research fellowships like Maulana Azad research fellowships were awarded to seven of our research scholars. Also, one CSIR fellowship, five fellowship through DST project, one fellowship through SERB project, one fellowship through UGC-

NET and one fellowship through Rajiv Gandhi Fellowship are awarded to our research scholars.

- ❖ All the departments have conducted the meeting of the progress review for this semester and the minutes were submitted to the office of Dean (AR).

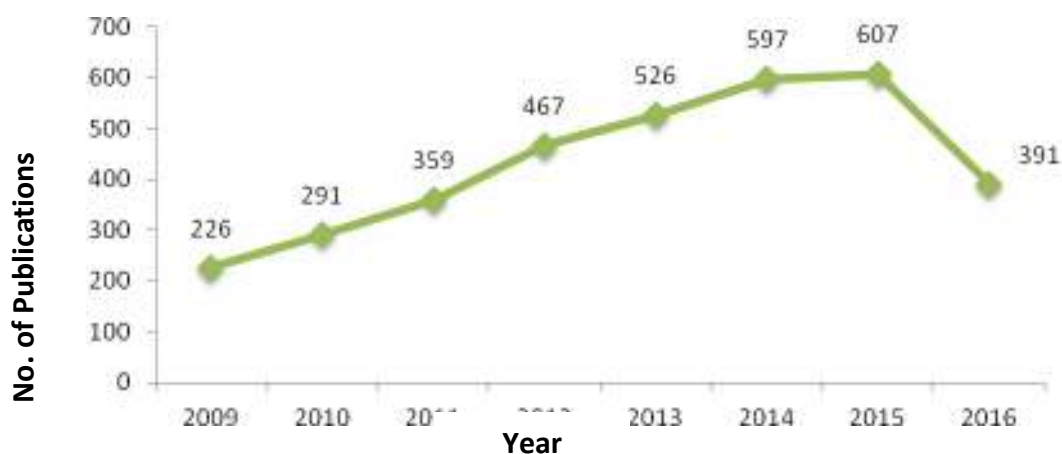
➤ **Analysis of Research Publications**

- ❖ It has been a practice of the Office of Dean (Academic Research) to collect the details of Research Publications (INJ, NJ, INC, NC) of the faculty members for our university database once in 3 months, i.e., every quarter and make a analysis of the same.
- ❖ The criteria to be considered for the analysis include the following:
 - Consolidation of research publication once in 3 months
 - Publication trend
 - Citations trend
 - h-Index analysis

➤ **An overview of the Research publications of University as of Dec 2016 is given below:**

- ❖ Total no. of Research Publication = 4519
- ❖ No. of Publications for the period 1984 – 2008 = 1055
- ❖ No. of Publications for the period 2009 – Dec 2015 = 3464
- ❖ Total number of faculty = 377

PUBLICATION TREND
(after becoming university)



(i) Details of Indexed Publications (As on 31.12.2016)

Parameter	Category	
	Journals	Conferences
Total number of publications	1,621	1,843
Indexed	1,200	280
Non-Indexed	421	1,563

(ii) Details of Peer Reviewed publications (As on 31.12.2016)

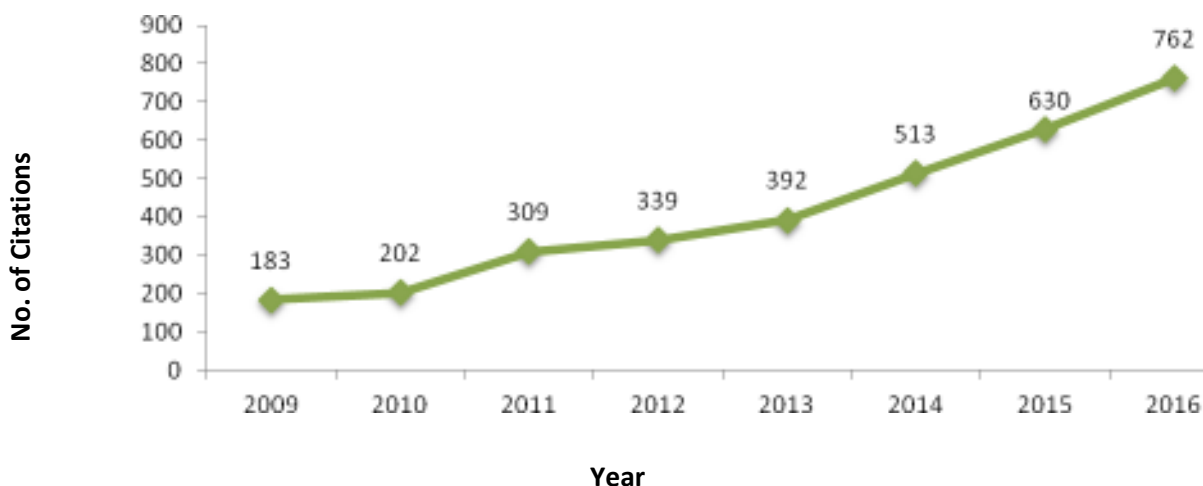
Parameter	Category		Total
	Journals	Conferences	
Total number of publications	1,621	1,843	3,464
Scopus	624	190	814
WOS	274	0	274
IEEE	48	124	172
Google Scholar	1,020	227	1,247

(iii) Citation Trend: (As on 31.12.2015)

- ❖ Total no. of citations as on 31.12.2016 = 3997
 - No. of citations from 1984 – 2008 = 1440
 - No. of citation from 2009 – 2016 = 3330
- ❖ Average Citation Index as on 31.12.2016 = 4.104
- ❖ Average Impact Factor of Publications = 1.653

CITATION TREND

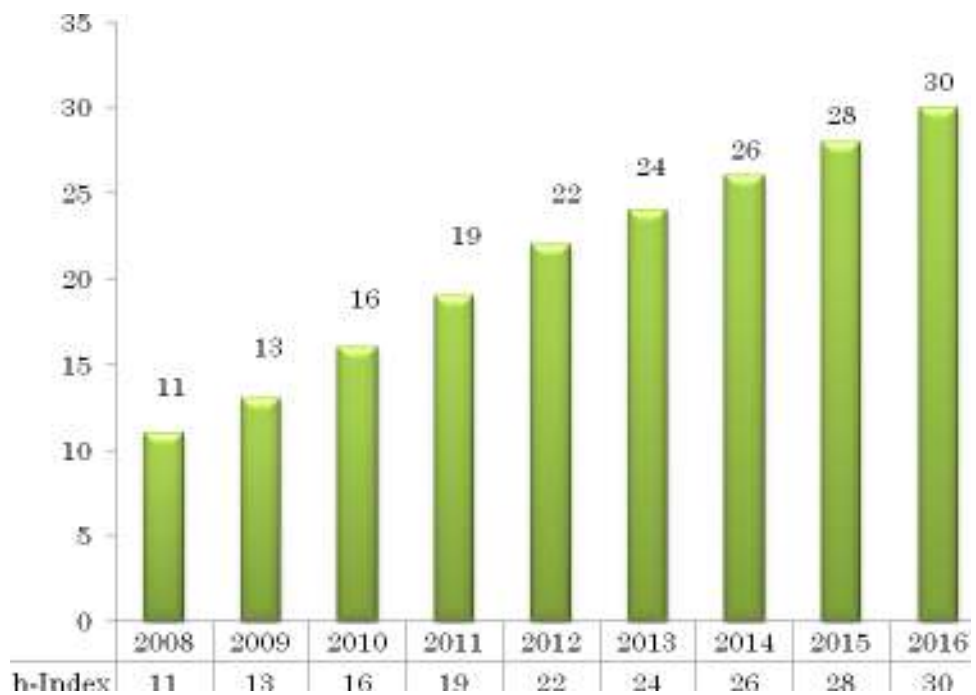
(after becoming university)



➤ **Scopus h-index of B.S.A.U.**

- ❖ The SCOPUS h-index for the research publications of our university is grown to 30, indicating the University's strong foot hold in research.

Scopus h-index of B.S. Abdur Rahman University (As on 31.12.2016)



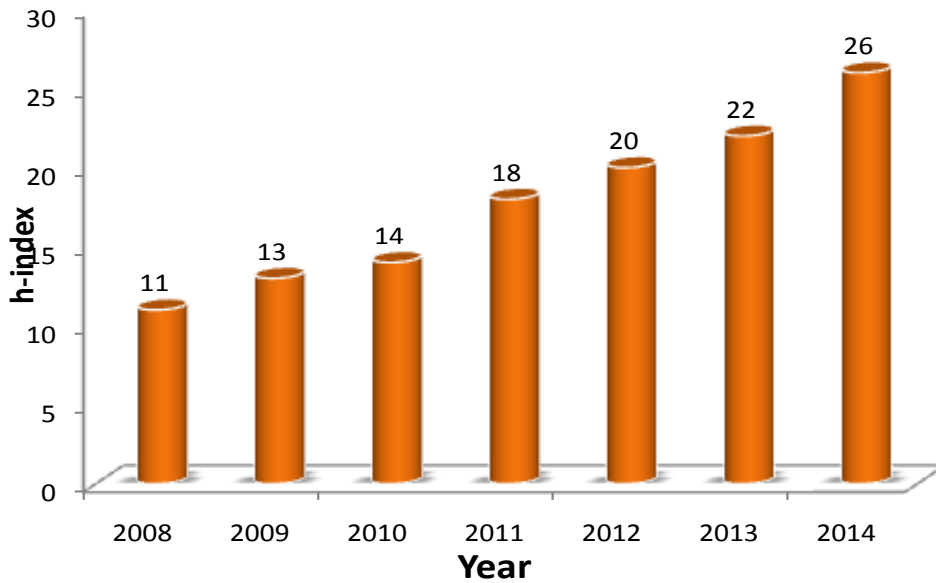
DEAN (ACADEMIC RESEARCH)

ACADEMIC RESEARCH

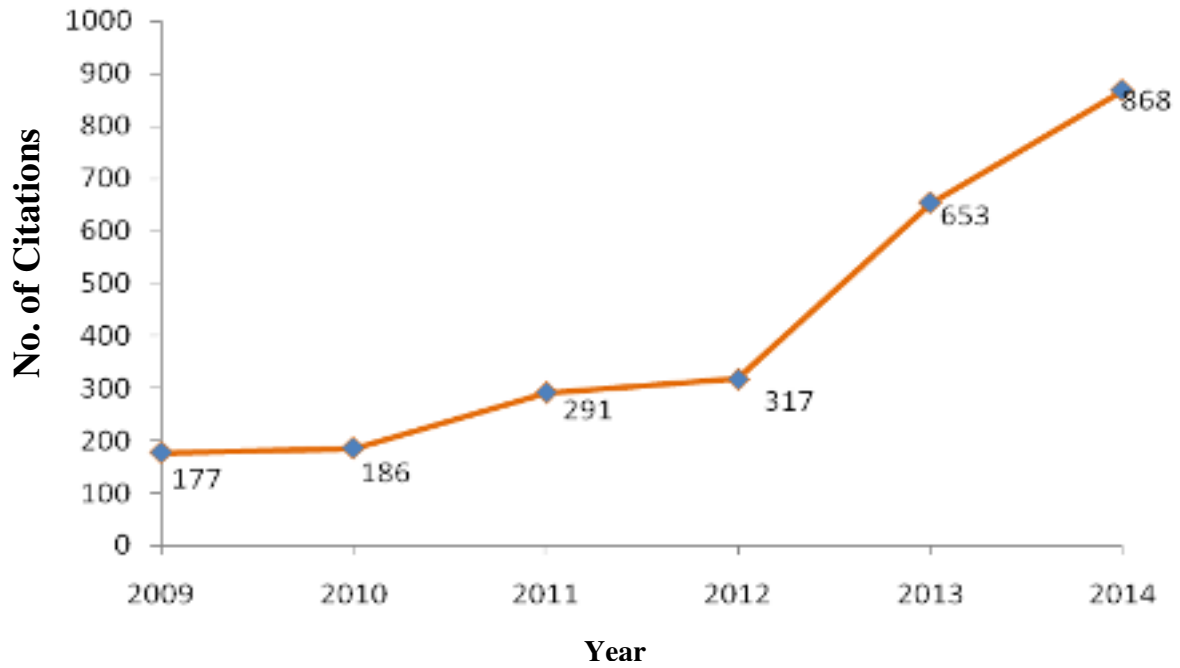
Because of the various initiatives taken, the research activities of our university are getting more prominence and the immediate goal is to become a “Research Intense University”.

- The H-index, Citation trend and publication trend is shown below:

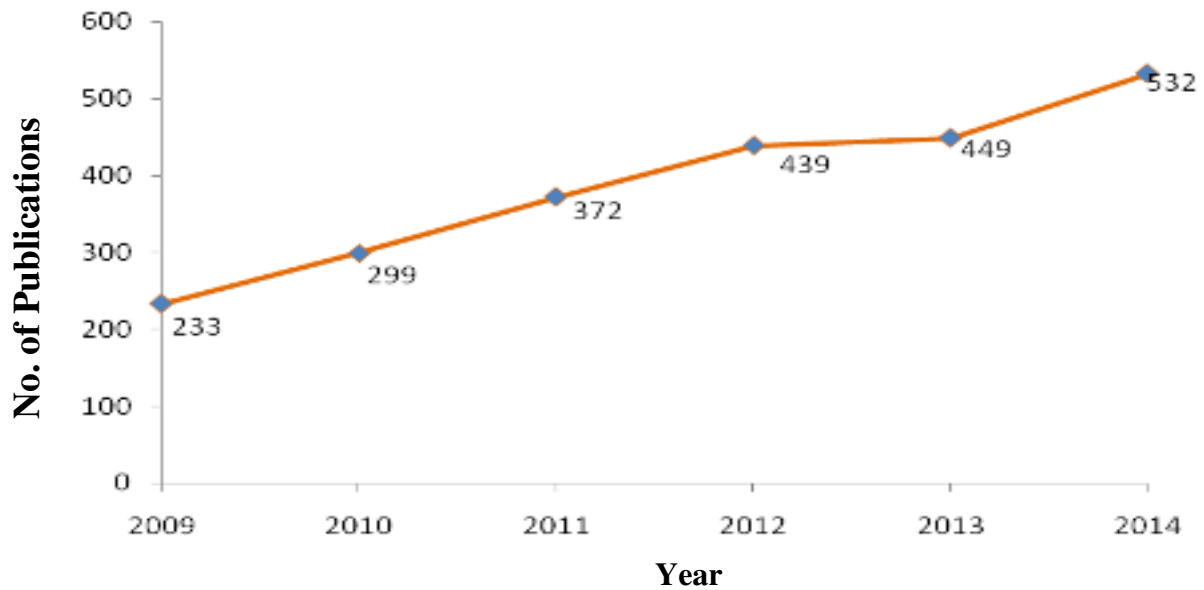
h-index of B.S. Abdur Rahman University



CITATION TREND



PUBLICATION TREND



Other noted research outputs are given below:

I.

➤ Total no. of Research Publication	=	3379
▪ No. of Publications for the period 1984 – 2008	:	1055
▪ No. of Publications for the period 2009 – Dec 2014	:	2324

II. Break up details of the Publications:

2013				2014			
INJ	NJ	INC	NC	INJ	NJ	INC	NC
185	25	87	152	277	7	133	115

III.

➤ Total no. of faculty	:	374
➤ Total no. of publications of published faculty	:	9 (= 3379 / 374)
➤ Total no. of citations as on 12.12.2014	:	3932
▪ No. of citations from 1984 – 2008	:	1440
▪ No. of citations for the period 2009 – Dec 2014	:	2492
➤ Scopus h-index	:	26
➤ Average citation index	:	3.576
➤ Average Impact Factor of Publications	:	1.67
➤ No. of papers with more than 10 citations	:	56

IIIA. Period wise publication details (Journals/Conferences):

Research Publications (Yearwise)	1984 - 2008	2009 - 2014	Total
INJ	292	930	1222
NJ	96	84	180
INC	267	683	950
NC	400	627	1027
Grand Total	1055	2324	3379

IV.

- **Total number of Faculty** - **374**
 - **Faculty with Ph.D** - **126**
 - **Faculty pursuing Ph.D** - **222**
- **Approved Research Supervisors** - **126**

SIGNIFICANT RESEARCH OUTPUT

- Six Ph.D. and Two M.Tech.(By Research) scholars were awarded degree during the Fourth Convocation
- One Ph.D. scholar has completed the Ph.D Viva Voce Examination
- Four Ph.D. scholars have submitted their Theses
- Four Ph.D. scholars have submitted their Synopsis
- Two Ph.D. scholars are recommended for Synopsis submission after Pre Synopsis Review Committee meeting

RESEARCH INCENTIVE SCHEME

The research contribution of every faculty member is assessed, every academic year, through periodical reviews. To promote research activities, University has an innovative “Research Incentive Scheme” under which the research contribution of every faculty member is assessed, every academic year, considering

- (i) Research Publications
- (ii) Publication of Book
- (iii) Collaborative Research Project with Foreign University
- (iv) Generation of Research Grants &
- (v) Patents

S. No.	Year of Award	No. of Faculty Members Awarded	Total Amount (Rs.)
1	2012 - 2013	62	7,33,280/-
2	2013 - 2014	71*	Yet to be awarded

SALIENT FEATURES OF RESEARCH BOARD MEETINGS

So far, **twenty two meetings** of the research board were conducted and its recommendations were implemented effectively.

The detail of the **meetings of the research board** is presented below.

S. No.	Details of the meeting of the Research Board	Date & Time of the Meeting
01.	Twenty Second Meeting	18.11.2014
02.	Twenty First Meeting	20.06.2014
03.	Twentieth Meeting	07.03.2014
04.	Nineteenth Meeting	23.01.2014

Some of the recommendations of the research board which got implemented successfully, after the approval of Vice Chancellor are presented below.

Sl. No.	Agenda Item Number	Detail of the Item	Impact
01	22.3	Proposing norms for foreign examiner for Ph.D thesis evaluation	The Board recommended that a "Minimum of 10 research publications in refereed / indexed journals, out of which 3 shall be in the area of research of the scholar" shall be prescribed as a minimum norm for proposing the foreign examiner.

02	22.4	Announcing the sophisticated equipments of this university, as “Central Research facilities”	The Board members recommended Dean (AR) to constitute a committee to identify the “Central Research Facilities” and issued orders accordingly
03	22.5	Expanding the Scrutiny Committee for Ph.D Thesis by inducting 3 more members	The Research Board decided to endorse and recommend to the Vice-Chancellor, for final approval, to enable the Dean (Academic Research) to Reconstitute a committee with three more senior faculty members for scrutiny of the Thesis of the research scholars
04	20.2	Special session for Ph.D admission	More faculty members have registered for Ph.D
05	19.4.1	Revision of existing norms for the Research Incentive Scheme	Higher bench mark is prescribed for receiving awards



Office of DEAN (Ac Research)

Annual Report

2017-18



Annual Report

of

ACADEMIC RESEARCH ACTIVITIES



Office of Dean (Ac Research)



B.S. Abdur Rahman

Crescent

Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956

GST Road, Vandalur, Chennai 600 048

The logo consists of a white circle on the left, followed by the word "ABSTRACT" in white, uppercase letters inside a dark red rounded rectangle.

As reflected in the vision statement of the B.S.Abdur Rahman Crescent Institute of Science and Technology, research remains one of the major areas of focus. The vision of the office of research is to strive to make the institution as a **Research Intensive Institution** through various quality enhancement and sustainable initiatives. The Institution has a well-established administrative structure to ensure quality research. The Research Advisory Committee and Research Board comprising eminent researchers in the field of Science, Engineering and Technology give directions to the overall research activities of the institute.

All the departments in various schools are offering Ph.D. programmes. Out of 358 faculty members, **133** are with Ph.D. qualification and **139** are pursuing Ph.D. in BSA Crescent Institute of Science and Technology and other Universities. At present, **552** research scholars are on-roll and **40** scholars have been already awarded Ph.D. degree. With an intention to promote quality research, the Institution offers JRF and SRF fellowships to 26 research scholars and another 21 scholars are securing fellowships from government funding agencies such as CSIR / DST / UGC / MNAF/WOS etc.,.

The progress made in the research front, after becoming Deemed to be University is commendable. The Scopus **h-index** of this Institution is currently **36**, which has increased from 11 in the year 2008. The average citation index is 5.434. More than **3000** research publications have been made in refereed journals and conference proceedings during the last six years. More than 25 funded research projects in the tune of **Rs.480.16 Lakhs** are currently being investigated by the faculty members. Already funded projects to the tune of Rs.325.91 Lakhs sponsored by funding agencies like DST, DRDO SERB, DBT, UGC-DAE, etc., have been successfully completed. Research Incentive Schemes to encourage quality publication, funded projects are also in practice.

The departments are equipped with the state-of-the-art equipment and softwares for carrying out research. The annual budget for the departments include a separate head, "R&D" and adequate funds are sanctioned to strengthen and enhance the facilities A separate Centre for Sponsored Research and Consultancy has been created in B.S.Abdur Rahman Crescent Institute of Science and Technology which is responsible for the promotion of Sponsored Research, Industrial Consultancy and Patent filing. Institution also has Innovation centre, Incubation centre and Nano centre.

The library has over 17,000 e-journals including IEEE, ASME, ASCE, Springer, Elsevier, Emerald, Proquest etc., and a good collection of Open Access Journals which can be remotely accessed from anywhere.

Research Board

The Research Board is an Internal Committee to oversee the academic research activities of the Institution. The major functions of the Research Board are:

- Scrutiny and recommendation of the names of faculty members for approval by the Vice Chancellor to act as Supervisors, for Ph.D. / M.Tech. (By Research) / M.Phil. Scholars.
- Scrutiny and recommendation of Ph.D. / M.Tech. (By Research) / M.Phil. Scholars application after interview by the various committees for final approval by the Vice Chancellor
- Determination of equivalence of PG educational qualifications, regulations etc. and other related matters.

MINUTES OF THE 29TH MEETING OF THE RESEARCH BOARD

Date : 22.06.2017

Agenda Items:

- 29.1 Scrutiny of applications selected for admission into Ph.D. programme.
- 29.2 Scrutiny of applications submitted under Approved Research Supervisorship.
- 29.3 Any other matter with the permission of Chair

Agenda Item 29.1:

- To scrutinize and endorse the candidates for admission into Ph.D. Programme for the July 2017 session based on the recommendation of the Department Selection Committee(s).

Agenda Item 29.2:

Scrutiny of applications submitted under Approved Research Supervisorship

Note on Agenda Item:

- As per our Ph.D. regulation 2016, clause 7.1, the applicant for recognition as Supervisor, shall satisfy the following:

- I. Shall be a full time working member of this University.
- II. Shall possess a Ph.D. Degree.

Shall have a minimum of two publications to his / her credit in refereed journals.

Agenda Item 29.3:

Any other matter with the permission of Chair

Note on Agenda Item:

Resolution:

After detailed discussions, the Research Board recommends that here after the award of credit for the research publications shall be considered, only if they are indexed either by Scopus or Web of Science and without any publication fee.

MINUTES OF THE 30TH MEETING OF THE RESEARCH BOARD

Date : 26.12.2017

Agenda Items:

- 30.1 Scrutiny of applications selected for admission into Ph.D. programme.
- 30.2 Scrutiny of applications submitted under Approved Research Supervisorship.
- 30.3 Any other matter with the permission of Chair

Agenda Item 30.1:

- To scrutinize and endorse the candidates for admission into Ph.D. Programme for the Jan 2018 session based on the recommendation of the Department Selection Committee(s).

Agenda Item 30.2:

Scrutiny of applications submitted under Approved Research Supervisorship

Note on Agenda Item:

- As per our Ph.D. regulation 2016, clause 7.1, the applicant for recognition as Supervisor, shall satisfy the following:
 - I. Shall be a full time working member of this University.
 - II. Shall possess a Ph.D. Degree.
- Shall have a minimum of two publications to his / her credit in refereed journals.

Agenda Item 30.3:

Any other matter with the permission of Chair

Note on Agenda Item:

- **Resolution:**
- After detailed discussions, the Research Board recommends that here after the award of credit for the research publications shall be considered, only if they are indexed either by Scopus or Web of Science and without any publication fee.

Minutes of the 31st Meeting of the Research Board

Agenda Items:

- 31.1.1 To consider the applications for Research Supervisor
- 31.1.2 To discuss the status of the Ph.D. research scholars admitted during 2009 – 2011
- 31.1.3 To discuss the status of M.S.(By Research) scholars admitted during 2011
- 31.1.4 To consider the request given by research scholars for fellowship
- 31.1.5 Any other matter with the permission of Chair.

Recommendations:

1. Research Supervisor ship may be granted for six faculty members
(Agenda item 31.1).
2. Cancellation of registration for M.S. (By Research) of two candidates **(Agenda item 31.3).**

3. One fellowship may be granted for one research scholar from the Dept. of Physics **(Agenda item 31.4)**.
4. The research scholars already completed six years period shall be regularized and the maximum period alert shall be issued to research scholar. The office of Dean (Ac R) shall have structure mechanism to monitor this process. It is unanimously suggested that research scholars who have completed six years period shall be given extension. Until eight years after Ph.D. registration to facilitate completion. This shall be applicable to all categories of Ph.D. registration. Those who have already crossed eight years may be given three to six months extension by Dean (Ac R) based on the merits and standards of their research publications. **(Agenda item 31.2 & 31.5)**.
5. It is suggested to have common Ph.D. regulation (2016 with amendments up to July 2017), all the scholars irrespective of the year of their Ph.D. registration from 2009 to 2017. This may be implemented from the date of approval by Vice Chancellor. This shall be taken to the next Academic Council Meeting for ratification.

About the Research bulletin

Description

The BSACIST started 'Research @crescent Bulletin' since Dec '2017 as a monthly issue. It includes both theme based and non theme based articles on the blazing issues. The objective of this bulletin is to share innovative achievements and practical experiences from diverse domains of Science, Humanities, Engineering and management, from researchers, practitioners, academicians and professionals.

It is designed to inform the activities involved in every month. This bulletin is dedicated to publish high quality research papers providing meaningful insights into the management content both in Indian as well as global context.

The Research Bulletin is available online through the crescent.education website

 [Research Bulletin](#)

 [Research Bulletin Vol 2 |Issue 01](#)

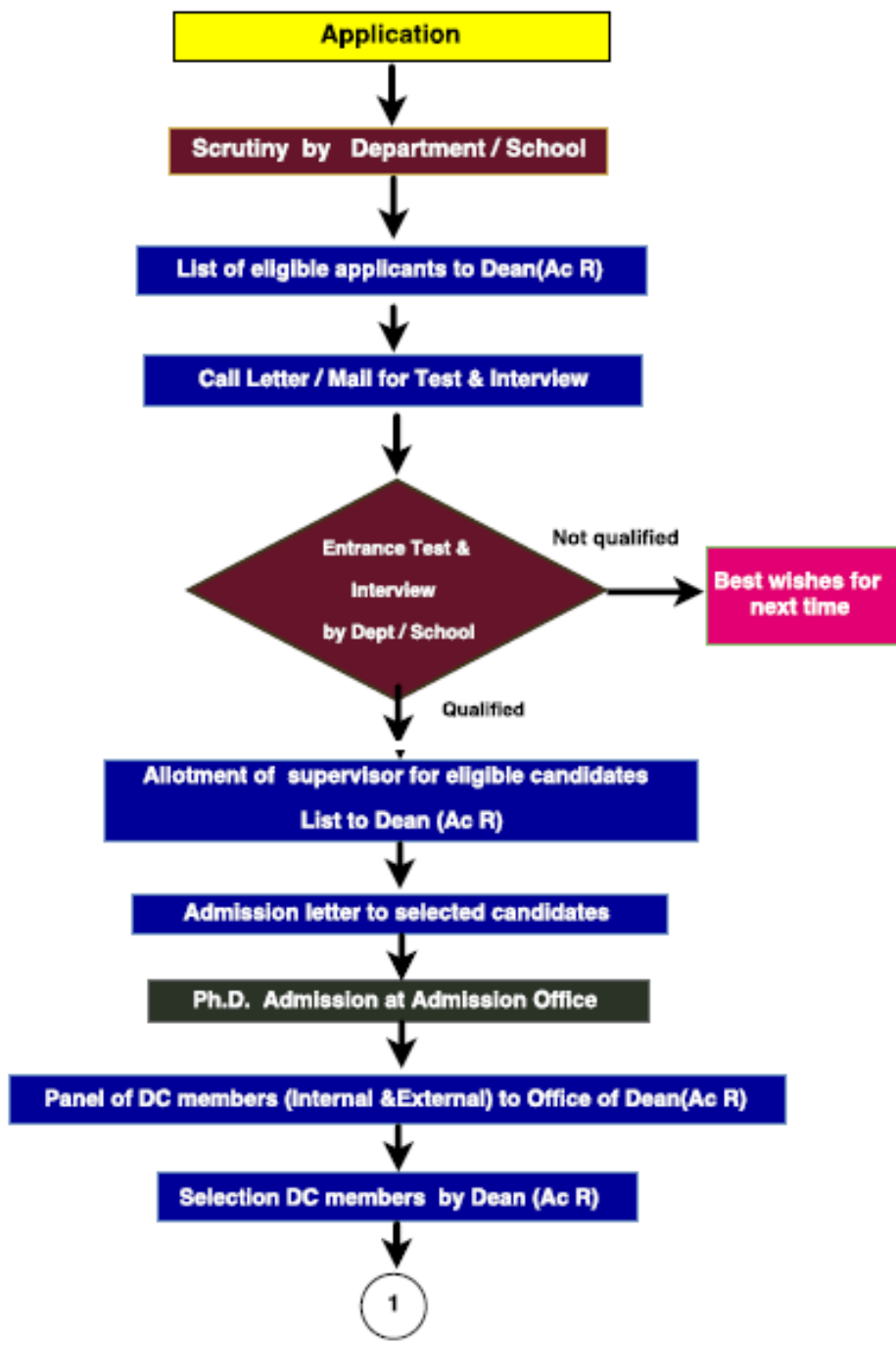
 [Research Bulletin Vol 2 |Issue 02](#)

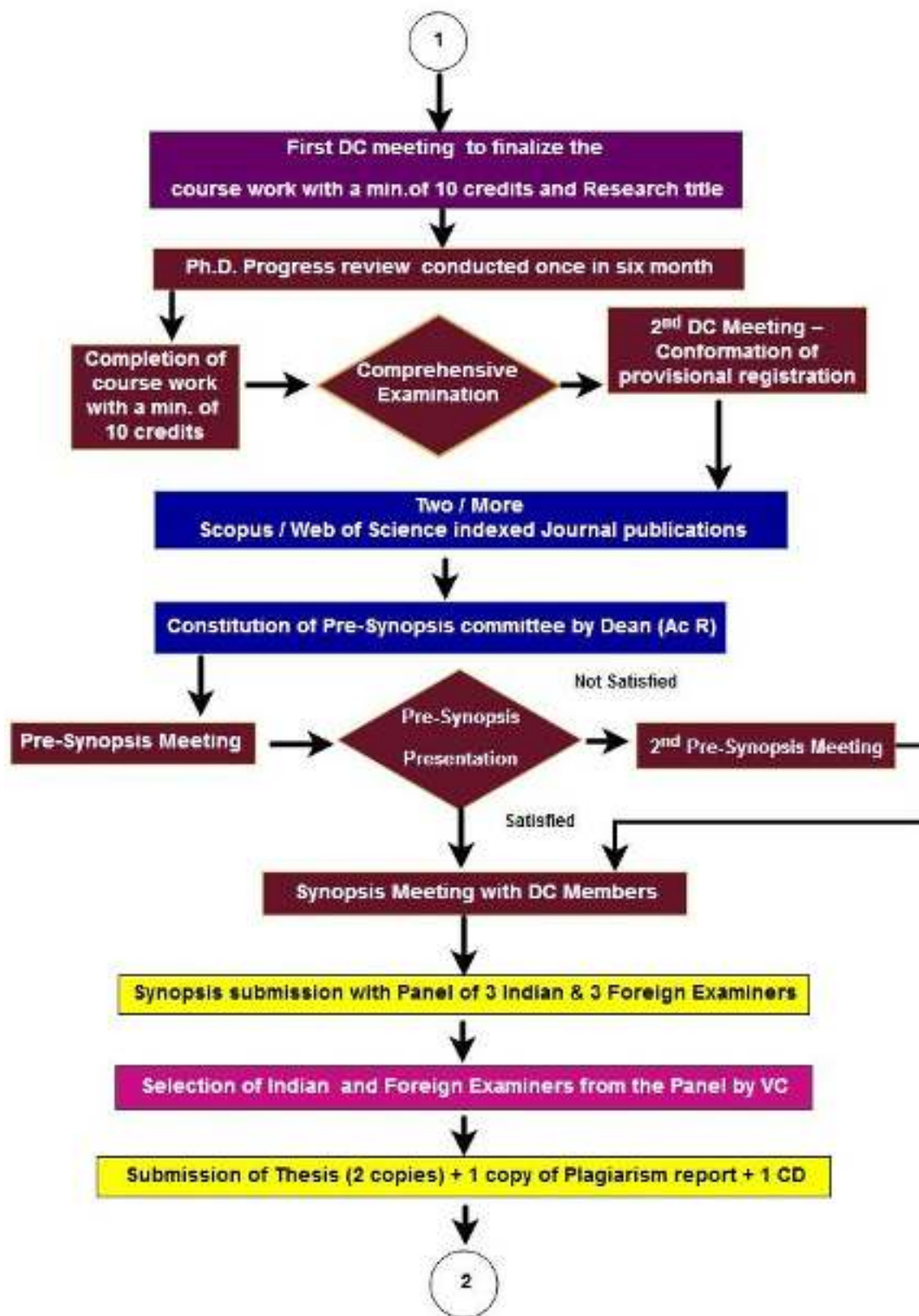
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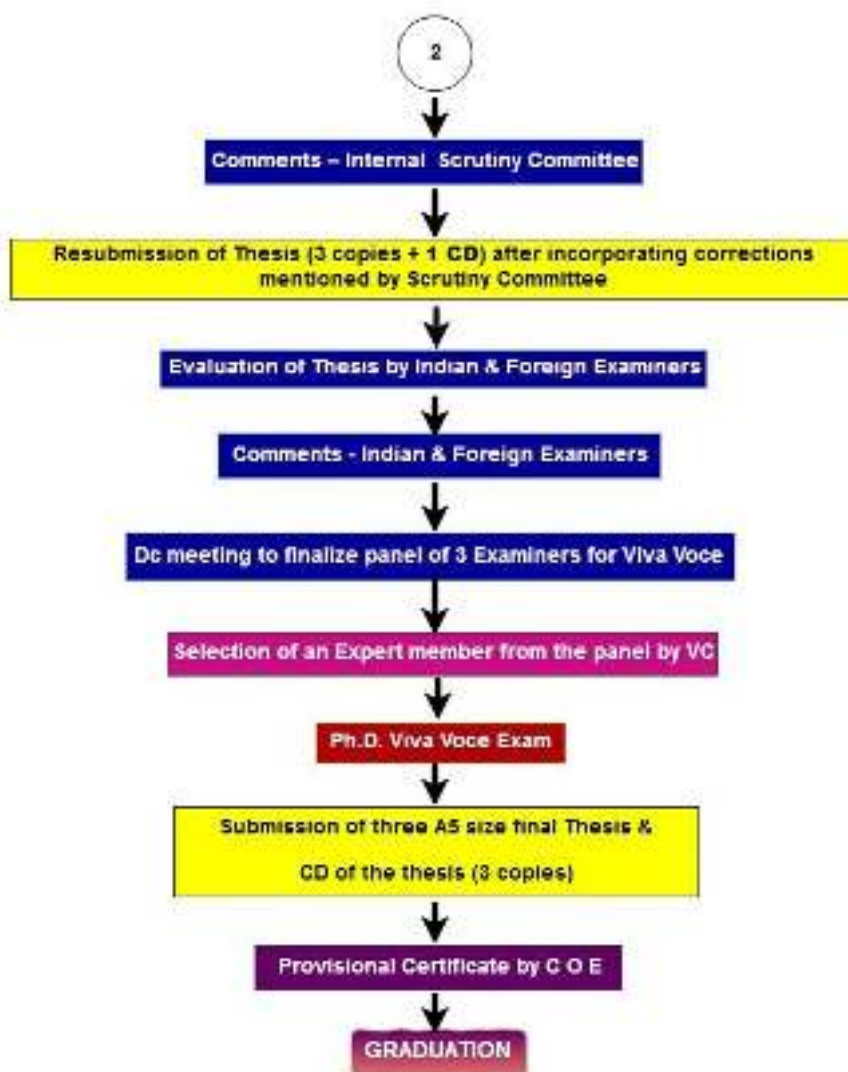
 [Research Bulletin Vol 2 |Issue 04](#)

 [Research Bulletin Vol 2 |Issue 05](#)

Ph.D. Programme Flow Chart







MOU WITH ACADEMIC INSTITUTIONS/FACULTY (INDIA AND ABROAD)

S.N O	DEPARTME NT	NAME OF THE UNIVERSITY	COLLOBORATION
1.	EEE	Dr. Akhtar Kalaam, Smart Energy Unit, College of Engineering & Science, Victoria University, Victoria, Australia	Offering a 2 credit course on “Power System Engineering Applications to Automation”, from 22 – 31 January 2018 for the III year B.Tech. (EEE) Students

MOU WITH INDUSTRIES Since 2017

<u>S.No</u>	Department	Name of the Host Institution/company	Date of Signing of MoU	Outcomes
1	ECE	Nokia Solutions And Networks India Private Limited	05.12.17.	<ol style="list-style-type: none"> 1. To provide Industrial visit, Guest Lecture, Internship for students. 2. To provide Project Guidance by Nokia Team to final year students
2	Polymer Engineering	Rubber Skill Development Council (RSDC)	22.04.2017	<ol style="list-style-type: none"> 1.To provide training for faculty members of the Department 2.To provide skill development training for the final year students.
3	CSA	Professional lighting design convention	02.11.2017	It is a platform to meet, learn and discuss the latest future developments in lighting
4	SLS	iBig foundation	17.2.17	<ul style="list-style-type: none"> • collaborative research in biological big data informatics
5	AUTO	Shabeel Honda	20.12.17	<ul style="list-style-type: none"> • Internship for students

Ongoing projects as on 1st January 2018

S.NO	TITLE OF THE PROJECT	NAME OF THE PRINCIPAL INVESTIGATOR	FUNDING AGENCY	PERIOD	GRANTS SANCTIONED (RS. IN LAKHS)
1	Synthesis and characterization of multi ferroic nano composites for functional applications	P. Komalavalli, Mentor Dr. I. B. Shameem Banu Dept of Physics	DST-WOS-A	2015-18	14.19
2	Investigation of multi-ferroic properties of rare earth and transition metal doped bismuth ferrite for functional applications	Dr. I. B. Shameem Banu Dept of Physics	DST-SERB	2015-18	23.55

3	Development of Graphene and Metal Nanoparticles Reinforced Flexible Polymer nanocomposites for Effective Electromagnetic Interference (EMI) Shielding Applications	Dr. M. Basheer Ahamed Dept of Physics	DST-SERB	2017-20	23.28
4	Construction of optical logic gates using soliton collisions and study of electrical solitons in nonlinear transmission lines	Dr. M. Vijayajayanthi Dept of Physics	DST-SERB	2016-19	16.11
5	Antimicrobial Efficacy and Mechanisms of Whole Plant Extract of Acacia Arabica with Triphala on Biofilm Forming Cariogenic Microorganisms	Dr. Karthikeyan Ramalingam SLS	AYUSH-EMR	2016-19	33.00
6	Understanding the metabolic compartmentalization of Cancers cells and cancer associated fibroblasts	Dr. Amrita Roy SLS	DST-SERB	2017-20	34.41
7	Synthesis of antimicrobial nanoemulsions for the treatment of multi-drug resistant ESKAPE pathogens	Dr. Karthikeyan Ramalingam SLS	DST - SERB	2015-18	23.28
8	Antioxidant gene polymorphisms and mitochondrial Ros signaling in cancer risk	Dr. Soumen Bera SLS	Department of Biotechnology	2015-18	24.75
9	Immunosuppressive cells within inflammatory Tumor Microenvironment	Dr. Neesar Ahmed SLS	DST - SERB	2015-18	22.66

ACHIEVEMENTS OF STUDENTS / SCHOLARS:

❖ Ph. D. Degree from BSACIST.

- **Eleven** Ph.D. scholars and **One** M.Tech (By Research) were awarded degree during the Seventh Convocation held on 07.10.2017. The details of the awarded scholars are as follows:

Sl. No.	RRN No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor
1	1093211	Employability Status of Engineering Students: A Comparison of Private Self financing Engineering Colleges and	Ms. S. Jainab Zareena	Dr. Haider Yasmeen

		Private Deemed Universities		
2	1190208	Synthesis, Suspension stability and Hydrodynamics of Iron Oxide Nanoparticles for Biomedical Application	Mr. S. Vikram	Dr. R. Vasanthakumari
3	0989201	Some Stochastic models for Determination of Optimal Reserve Inventory	Mr. C.D. Nanda Kumar	Dr. S. Srinivasan
4	1084208	Analysis of Human Retinal Morphology for the Identification of Diabetic Retinopathy and Maculopathy using Fundus Images	Ms. G.S. Annie Grace Vimala	Dr. S. Kaja Mohideen
5	1084210	Design and Analysis of microstrip antennas for wireless communication applications	Mr. J. Salai Thillai Thilagam	Dr. P.K. Jawahar
6	0989202	Analysis of Non Linear Mathematical Models of Tumor growth	Mr. M.G. Fajlul Kareem	Dr. P. S. Sheik Uduman
7	1289215	Mathematical Modeling, Performance Analysis and Optimizaiton of Operating System of Paper Plant	Mr. Pervaiz Iqbal	Dr. P. S. Sheik Uduman
8	1186220	Grammar Rule based Sentiment Analysis Techniques for Tamil Tweets Classification	Mr. T. Nadana Ravishankar.	Dr. R. Shriram
9	1291235	Synthesis, characterization and applications of rare earth metal loaded copper oxide nanoparticles	Ms. R. Sasikala	Dr. S. K. Rani
10	140903104002	Graphene Oxide and Transition Metal Oxide Reinforced Flexible Polymer Composites as High Dielectric Constant Materials for Energy Storage Applications	Mr. Kalim Abdul Rashid Mumtaaz Deshmukh	Dr. M. Basheer Ahamed
11	1291238	Studies on the Synthesis, Characterisation and Antimicrobial Applications of Schiff Base Metal Complexes	Mr. G. Sridhar	Dr. I. Mohammed Bilal
12	1262207	Natural Rubber/OMMT Nanocomposites for Reinforcement in Tyre Ply	Mr. U. D. Benson	Dr. S.S.M. Abdul Majeed

❖ Viva-Voce Exam completed

- **Ten** Ph.D. scholars have completed the Viva Voce Examination and are awaiting for the convocation date.

Sl. No	Name	Dept.	RRN	Supervisor Name & Designation	Date of Viva Voce	Title /Topic of Research
1.	Mr. S. Udhaya Kumar	CSE	1086210	Dr. Latha Tamilselvan, Professor	21.11.2017	Adaptive trust model with attestation for software services in cloud environment
2.	Mr. Vijayakumar. S	English	1192204	Dr. A. Shahin Sultana Professor	12.12.2017	Teaching Academic Writing to the Students of Engineering using Multimedia Tools an Experimental Study
3.	Ms. A. Divya	Mathematics & AS	1289214	Dr. P. S. Sheik Uduman Professor	05.01.2018	Analysis of Risk factors of Heart Disease Using Decagonal Fuzzy Models
4.	Mr. M. Syed Masood	CA	0994201	Dr. P. Sheik Abdul Khader	12.01.2018	Enhanced Routing and Queue Management Techniques for Performance Improvement in Mobile Ad hoc Networks
5.	Ms. P. Latchoumy	CA	0994202	Dr. P. Sheik Abdul Khader	11.01.2018	Integrated Proactive and Reactive Failure Handling Strategies to improve the Services in Computational Grid
6.	Ms. P. Veeralakshmi	CSE	1086214	Dr. Latha Tamilselvan	13.04.2018	Development of Confidentiality, Integrity, Authentication Model for Assuring Data Security in Cloud Computing
7.	Mr. S.A. Usman Ali	Islamic Studies	1188201	Dr. P.S. Syed Masood Jamali	18.04.2018	A Concept of Plural Society in Quran and Hadeeth
8.	Mr. Mahalingam V	Physics	140903101003	Dr. I. Raja Mohamed	19.03.2018	Synthesis and Characterization of Rare Earth Doped Molybdate and Tungstate Phosphors for Lighting Applications

9.	Ms. A. Sathiya Priya	Physics	1390118	Dr. I. B. Shameem Banu	15.05.2018	Nano Composite Thin Films
10.	Ms. V.K. Subhashree	ECE	1384118	Dr. C. Tharini	08.06.2018	Analysis on the Performance of Energy Efficient Routing and Fault-Tolerant Data Aggregation Algorithms for Wireless Sensor Networks

- **Two** M.Tech. (By Research) scholars have completed the Viva Voce Examination and are awaiting for the convocation date.

Sl. No	Name	Dept.	RRN	Supervisor Name & Designation	Date of Viva Voce	Title /Topic of Research
1.	Mr. Eliass A Latiff	Civil	1260202	Dr. M. S. Haji Sheik Mohammed, Professor & Dean(AA), Registrar(i/c)	01.11.2017	Development and performance Evaluation of Polymer Based Heat reflective waterproofing system
2.	Mr. M. Mohamed Ibrahlim	Civil	1260201	Dr. M. S. Haji Sheik Mohammed, Professor & Dean(AA), Registrar(i/c)	21.11.2017	Strength and Durability Studies on Ferrocement Slab Panels for Suspended Roof

❖ Thesis Submitted

- Twenty Four Ph.D. scholars have submitted their Thesis **and sent for evaluation**

❖ Synopsis Submitted

- Ten Ph.D. scholars have submitted their Synopsis

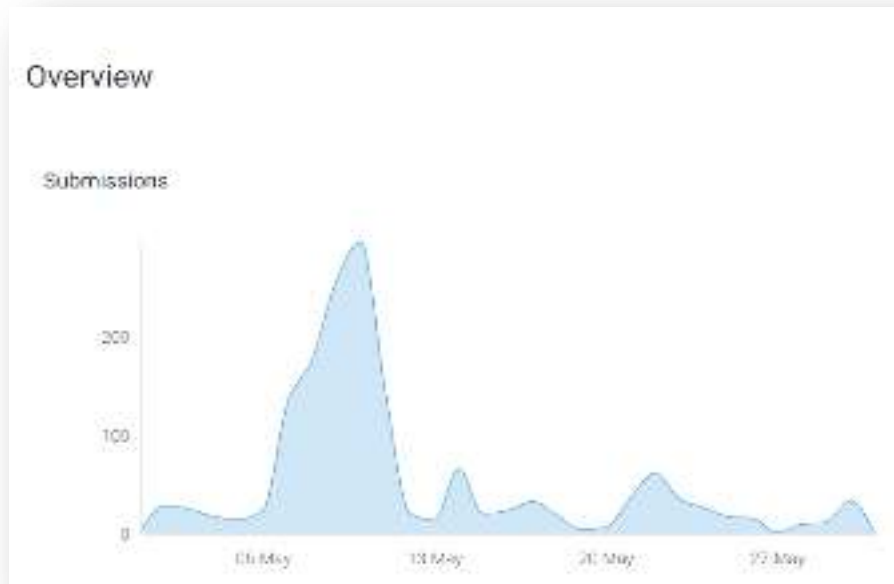
❖ Ready for Synopsis Submission

- Ten Ph.D. scholars are recommended for Synopsis submission after Pre Synopsis Review Committee meeting

 Turnitin Information in May 2018

-
-

- All the final year students of U.G and P.G were used their project report in turnitin software. The reflection in graph of turnitin software usages for the rate of change (slope) was high between the dates from 05th May 2018 to 12th May 2018



Ph.D. Admission

- Admission to Ph.D. programme is twice in a year, i.e, during **January & July**.
- The application form from can be obtained from the office of Director (Admissions) of B.S. Abdur Rahman Crescent Institute of Science & Technology or can be downloaded following website link <http://www.bsauniv.ac.in/admission-for-research-scholars>
- The filled in application along with a Demand Draft (DD) for Rs.1,000/- (Rupees One Thousand only) should be submitted to

Director (Admissions),
B.S. Abdur Rahman Crescent Institute of Science & Technology,
Seethakathi Estate, Vandalur, Chennai-600048,
Phone:+91-44-22759236 / 22759200 / 9543277888, Extn: 122 / 124 / 223

- For Enquiries, please contact
- admissions@crescent.educatiobn
- dean.academicresearch@bsauniv.ac.in

Schedule of Admission events

- Schedule of Ph.D. Admission process for Ph.D. Programme will be uploaded in the Institution Website **two months** in advance to the admission every semester.

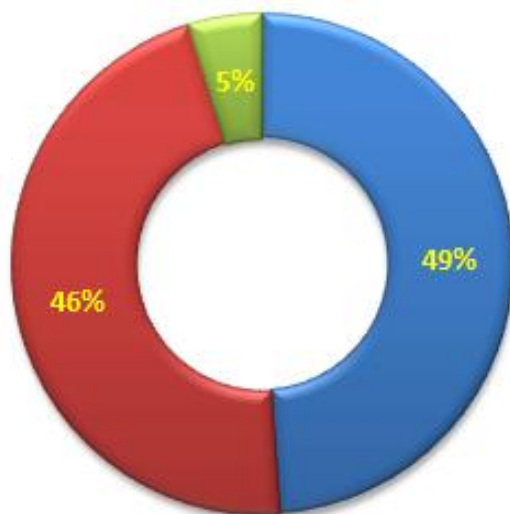
The schedule followed in the January 2018 session is shown below

Sl.No.	Description	Date	Day
1	Ph.D. admission advertisement will be released in the Institution website /news paper	06.09.2017	Wednesday
2	Last date for submission of application	30.11.2017	Thursday
3	Dispatch of applications to respective departments for scrutiny and to find out the eligibility	04.12.2017	Monday
4	Individual departments will submit the list of eligible candidates to the office of Dean (Ac R)	06.12.2017	Wednesday
5	Call letters will be sent to the eligible candidates by e-mail / post	11.12.2017	Monday

6	Entrance examination and interview	18.12.2017	Monday
7	Submission of "Minutes of the department selection committee" to the office of Dean (Ac R)	20.12.2017	Wednesday
8	Vice Chancellor's approval for the minutes	22.12.2017	Friday
9	Publication of results in the Institution website	23.12.2017	Saturday
10	Admit card will be sent to selected candidates by e-mail / post	26.12.2017	Tuesday
11	Admission to Ph.D. Programme for January 2018 session by the admission office	03.01.2018	Wednesday

Faculty members pursuing Ph.D.

No. of full time regular faculty	–	358
No. of faculty with Ph.D. qualification	–	133
No. of faculty pursuing Ph.D.in BSACIST	–	126
No. of faculty pursuing Ph.D.in other universities	–	13
No. of Approved Research Supervisors	–	136



- No. of faculty with Ph.D. qualification
- No. of faculty pursuing Ph.D.in BSACIST
- No. of faculty pursuing Ph.D.in other universities

- The research scholars of B.S. Abdur Rahman Crescent Institute of Science & Technology are encouraged to publish research papers only in Peer Reviewed (Refereed) Indexed Journals with high impact factor.
- Advised to avoid publications in Predatory Journals.

[List of Journals](#) detail is available in the following Institution website

<http://www.bsauiv.ac.in/List-of-Journals>

- Scopus Indexed Journals (as on June 2017)
- Discontiued-Sources-from-Scopus-May 2017
- Web of Science Citation Indexed Journals(as on May 2017).
- Web of Science Social Sciences Citation Indexed Journals (as on May 2017).
- Criteria for Determining Predatory Open-Access Publishers(Jeffrey Beall Blog).
- List of Potential Predatory Scholarly Open-Access Publishers(Jeffrey Beall Blog).

Research Publications

- A significant number of papers based on the research work and project works have been published by the faculty members and the research scholars in International and National Journals.
- Apart from these, they present papers in International and in National Conferences.

Research Output

No. of Journals & Conference proceedings for the period 1984 – 2008	1055
No. of publications in Journals for the period 2009 – 2017	1872
No. of publications in Conference proceeding 2009 - 2017	1937
No. of publications in Journals for the year 2017	234

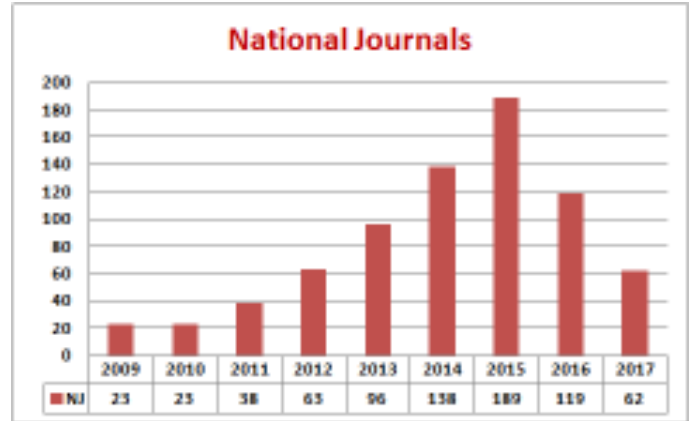
No. of publications in Conference proceedings for the year 2017

107

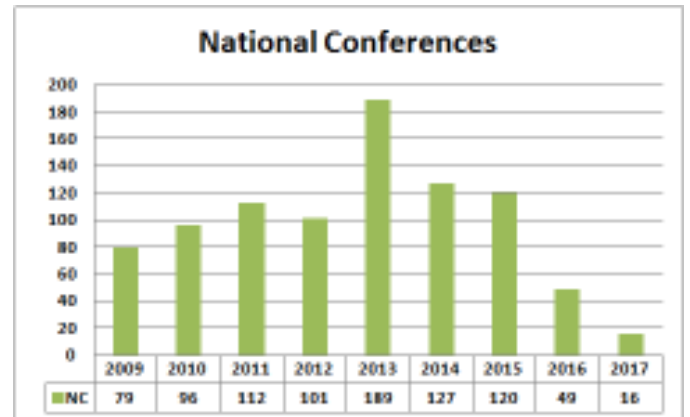
No. of publications in Conference proceedings for the year 2017

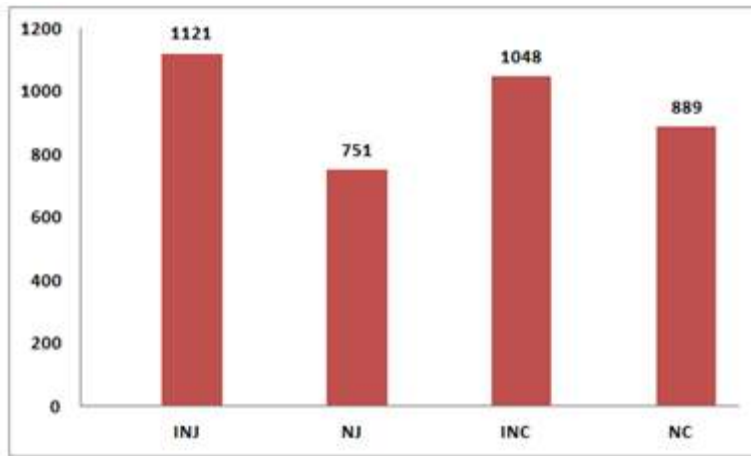
107

YEAR	INJ	NJ	INC	NC
2009	68	23	56	79
2010	75	23	100	96
2011	100	38	109	112
2012	148	63	154	101
2013	124	96	118	189
2014	188	138	141	127
2015	115	189	183	120
2016	131	119	96	49
2017	172	62	91	16
Total	1121	751	1048	889
	1872		1937	



Proceedings

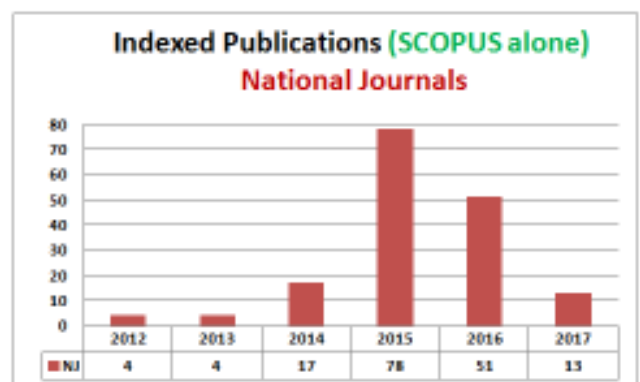
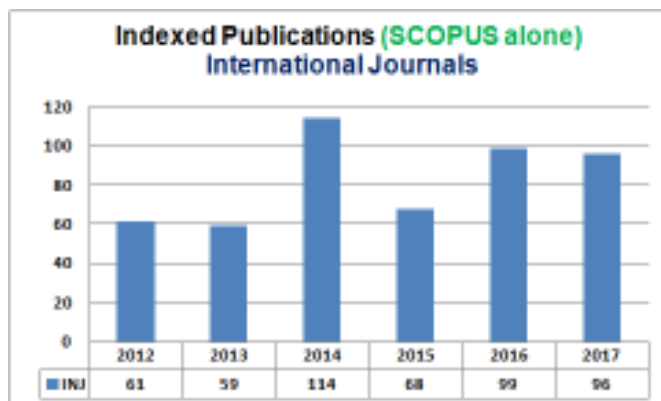


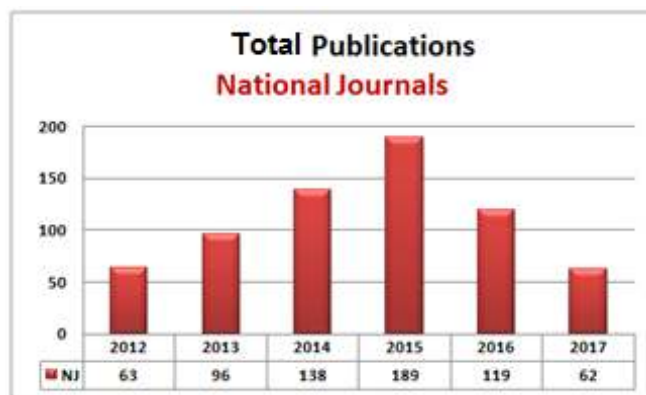


Total Publications

Indexed Journal publications

Year	Indexed Publications (SCOPUS alone)		All Publications	
	INJ	NJ	INJ	NJ
2012	61	04	148	63
2013	59	04	124	96
2014	114	17	188	138
2015	68	78	115	189
2016	99	51	131	119
2017	96	13	172	62
Total	497	167	878	667
	664		1545	



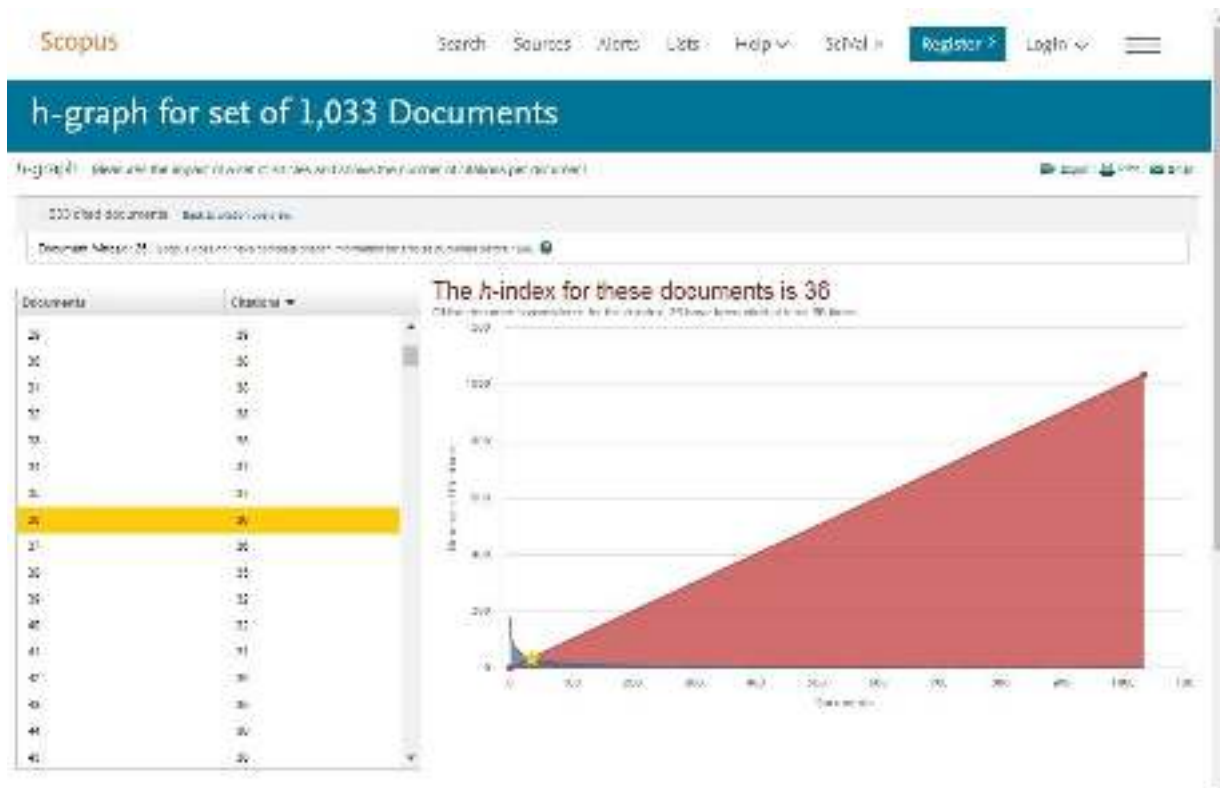


Citation Trend

- **Scopus h – index** **36**
- **Scopus citation** **1,033**
- **No. of Citation** **5,614**
- **Average Citation index** **5.434**
- **No. of papers with more than 10 citations** **153**
- **Average Impact factor** **1.726**

Scopus h-index of BSACIST= 36

Scopus h-index = 36



S.NO	SCHOOL	DEPARTMENT	SCOPUS H-INDEX
1	School of Mechanical Sciences	Mechanical Engineering	7
		Automobile Engineering	2
2	School of Infrastructure	Civil Engineering	1
3	School of Physical And Chemical Sciences	Physics	17
		Chemistry	8
4	Crescent School of Business		1
5	School of Electrical And Communication Sciences	Electrical & Electronics Engineering	3
		Electronics & Communication Engineering	5
		Electronics & Instrumentation Engineering	2
6	School of Computer, Information And Mathematical Sciences	Computer Science & Engineering	5
		Information Technology	3
		Computer Applications	6
		Mathematics	2
7	School of Life Science		10
8	Polymer Nano Technology Centre		6

Consolidated table

Description	No.
No. of Ph.D. degree awarded in BSACIST since 2009	40
No. of M. Tech.(By Research) degree awarded since 2009	7
No. of Scholars pursuing Ph.D.	552
No. of M.Tech (By Research) Scholars	3
Faculty members pursuing Ph.D. (Internal)	139
No. of candidates admitted for Ph. D. Programme in July 2017 session	41
Thesis Submitted in the year January 2017	24
No. of Ph.D. degree awarded in the year 2017	11
No. of M.Tech. (By Research) degree awarded in the year 2017	3
No. of Scholars who submitted Synopsis in the year 2017	28
No. of BSA fellowships for Ph.D. Scholars	26
No. of Govt. fellowships	21
No. of Research Supervisors in BSACIST	120

Research Publications with more than 10 Scopus Citations

Research Paper with Highest number of citations = 177

- No. of papers with more than 10 Scopus citations = 161
- BSACIST has been awarded for the best practices in the “**Academic Research**” category, instituted by ICT Academy during their Silver Jubilee Celebration on 28th February 2017.



Research Activities

- One-week Workshop on “**Strategies for Innovative and Quality Research**” was conducted during 31.07.2017 to 05.08.2017 by Office of Dean (Ac Research)

The workshop was inaugurated by the Vice Chancellor Dr. Sahol Hamid Bin Abubakar, Mrs. Nikhta Hamza, Director Hr welcomed the gathering. Dr.I.Raja Mohamed,Dean (Ac Research) addressed the delegates on the importance of research and program structure. Prof. Nikhil A Gokhale RK University, Gujarat acted as resource person. He has delivered lectures in the following areas and also interacted with the participants on strategies and innovation towards good research.

- Research Methodology
- International opportunities and successful grant applications
- Scholarly communications
- Facing job interviews and opportunities after Ph.D
- Presentation skills and High-Impact Publishing
- Patent applications
- Leaders Vs Followers and Combating Stress
- The Indian Entrepreneur and Alternative Career

The Central Library arranged live demo on remote access, effective search on e- resources and plagiarism checking. The workshop ended with a lecture by Dr. Nikhil A Gokhlae on Pedagogy innovation for faculty members of the Institution on 05.08.2017.

VC's Town Hall Talk

VC's Town Hall Talk with Research Scholars held on 21st Nov 2017 at 10.00 a.m. in the Seminar Hall II, Convention Centre.





The meeting was chaired by Tan Sri Dato Sri Dr. Sahol Hamid Bin Abu Bakar, Vice Chancellor.

127 Research scholars across all disciplines attended the meeting.

The meeting started with the address of Vice Chancellor about the importance of research in career and ranking of Universities.

He also informed that the research scholars can meet him on any research issue on evening Friday before lunch or through email - vc.connect@bsauniv.ac.in

Onsite Training Seminar

Onsite Training Seminar on TURNITIN - PLAGIARISM CHECK SOFTWARE on 6th Nov 2017



The office of Dean (Ac Research) organized onsite training on “How to use TURNITIN PLAGIARISM SOFTWARE EFFECTIVELY “. Dr. Md Khurshid Alam Khan, Deputy Dean (Ac.Research) welcomed the gathering. This programme is arranged with the motive of sharing the knowledge and training experience in Turnitin software to check various types of documents including research articles , thesis, etc.

Mr. Varun Piplani from Turnitin was the speaker .

Dr. E.Syed Mohamed, Asst.Dean (Ac Research), delivered vote of thanks.



Workshop on “Scholarly Article Writing and Journal Publications”

A one day Technical Workshop on “Scholarly Article Writing and Journal Publications” held on 13th March 2018 ,Tuesday at 9:30 AM by the Office of Dean(Academic Research),B.S.Abdur Rahman Institute of Science & Technology, Chennai. The Chief Guest of the Workshop was Dr. T. VELMURUGAN, PG & Research Department of Computer Science, D. G. Vaishnav College (Autonomous), Chennai.

The Speaker talk was very inspiring. He talked on the topic “Scholarly Article Writing and Journal Publications “. He shared many examples and experiences to explain his views to the gathering. He talked about the steps to develop the research of the scholars so that they published in good journals.

He also explained the Article writing which should be developed by the scholars. His talk was very interesting and inspiring to our scholar which will surely help our scholars

to reach good quality research ideas. Totally 67 scholars were attended the workshop and gave the feedback is “GOOD”.

Guest Lecture on “A Computation Analysis of Indus Valley Inscriptions”



Office of Dean (Ac Research) facilitated for a guest lecture on “A Computation Analysis of Indus Valley Inscriptions” on 03-04-2018 at Seminar Hall – I, Convention Center, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Mr. Md Izhar Ashraf, Project Assistant, The Institute of Mathematical Sciences (IMSc), Chennai and Ph.D. scholar, Dept. of CA, was the chief guest for the event. The event was presided over by Dr.I.Raja Mohamed, Dean (Ac Research). Dr.E.Syed Mohamed, Assistant Dean (Ac Research) was the event coordinator.

The chief guest gave a good overview about Directional symmetry breaking of sign usage in words. He termed it as the “Headedness” of the language. The probability of occurrence of signs at the left and right ends of words form a good normal distribution. Certain symbols or certain combination of symbols occur at the beginning of the words or at the end of the words more frequently than other symbols. This is found to be true not just in one language but across the languages. He explained about how he used the measures of equality like Gini Index or Entropy to quantitatively assess the degree of asymmetry in the sign occurrence distributions for different linguistic corpora.

He also gave a good overview about how small concepts when applied in an incremental manner can yield some significant results. This was followed by Question & Answers session. The sessions were very interactive and were well received by the participants especially the research scholars. All good things comes to an end, the Lecture was concluded with the vote of thanks from the Dean (Ac Research). The participants dispersed with the satisfaction of attending a good Lecture.

A Workshop on “How to Make Mobile Resume Website in 3 Hours”



Office of Dean (Ac Research) facilitated for a Workshop on “How to Make Mobile Resume Website in 3 Hours” on 21-04-2018 at Seminar Hall – I, Convention Center, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Mr. Bharatwaj Ramakrishnan, Software Engineer, CaratLane, Chennai was the chief guest for the event. The event was presided over by Dr.I.Raja Mohamed, Dean (Ac Research). Dr.E.Syed Mohamed, Assistant Dean (Ac Research) was the event coordinator.

The chief guest gave a good overview about how to apply for a job and write a resume that is done in MS word or send the pdf file to the recruiters. GitHub solves this problem. It is an application which makes use of the HTML, Java can write our resume using some codes. And we just have to send our resume website link to the recruiter.

He also gave a good overview about how simple resume using Atom Editor with Github. This was followed by Question & Answers session. The sessions were very interactive and were well received by the participants especially by the research scholars.

The workshop was concluded with the vote of thanks from the Asst.Dean (Ac Research). The participants dispersed with the satisfaction of attending a good workshop.

Workshop on Data Analytics Using SPSS

Segment of Scholars

This is designed for scholars from English Language, Management (including all functional areas, Law, sociology, Econometrics, Data Analytics and humanities). Any one of the scholars

of B S Abdur Rahman Institute of Science and Technology is welcome to register for the course (it is open for external candidates).

Date	Content
02.05.2018	<ul style="list-style-type: none">• Data Analytics and how to use SPSS• First Cut Analysis of Data. Exploring data with the help of Graphs• Correlation, Basics• Introduction to Regression
03.05.2018	<ul style="list-style-type: none">• Bias-Spotting Bias-Reducing Bias• Hypotheses and Testing hypotheses• Regression• Interpreting regression output
04.05.2018	<ul style="list-style-type: none">• Summary of learning and application to individual data sets• Multivariate Analysis• Factor analysis• Practice with data sets and writing• Cluster Analysis• Summary of learning
05.05.2018	<ul style="list-style-type: none">• Comparing two means• Comparing Several means (ANOVA)• Comparing Several means (ANOVA)• Post hoc Procedures

Number of Participants

Numbers of participants were attended: 25 and accepted on first come first served basis.

Venue: Central Library

Pre workshop Requirements and rationale for the programme

The programme assumes no formal understanding of statistics and mathematics. It is to help scholars to use statistics to aggregate data or summarize data, predict outcomes or most importantly testing hypotheses that need to be tested. It is designed for research scholars who wish to have a statistical thinking rather than being users of tools. SPSS is one of the tools such as R, SAS etc. The objective is not to teach SPSS but how to use SPSS for your data analytics needs. However the programme is more involved requiring good amount of work during the session as well as in group learning sessions.

Sustainability Statement

The programme is a precursor to the four similar three days programmes planned for the next four weeks. The feedback is obtained and further four programmes will be designed and delivered. The future sessions will have experts from SPSS. This session resource person was Dr.K.Prabhakar.

Thesis Awarded Degree

- No.of Ph.D. Thesis Awarded Degree: 40 Nos.
- Department wise details are shown in table

S.No	Department	No.
1	Physics	9
2	English	1
3	CSE	8
4	MCA	1
4	Civil	1
5	Mechanical	2
6	Mathematics	5
7	Chemistry	5
8	ECE	5
9	MBA	1
10	Polymer	2
	Total	40

FUTURE PLAN

- To attract International scholars to pursue collaborative quality research
- To offer Post Doctoral Programme in all the departments
- To achieve a h-Index of 100 in the next 10 years
- To become an Institution with all faculty members having Ph.D. Qualification
- To initiate more Collaborative research work with premier Universities & Industries
- To create more centres of excellence for advanced studies and research

Centre for Energy Research Studies

Roof-Top Solar Power Plants





- Total Solar Power Generation - 250kWp
- From June 2014 to Dec 2017

Plant	Units Generated	Amount recovered (Rs)
150Kwp	717,471	6,204,687
100kWp	456,586	3,962,773
Total	1,174,057	10,167,460

The number of units generated through solar power plants constitutes 10% of total electricity consumption since June 2014.

- Solar Water Heaters Installed In Residential Area

<u>MEN'S HOSTEL</u>		
Block	No. of tanks	Capacity in litres
A Block	16	4000
B Block	20	5000
C Block	18	4500
D Block	18	4500
Main block	20	5000
PG block	12	3000
<u>LADIES HOSTEL</u>		
Main block	22	5500
Annexe Block		
New Block Phase 1	21	5250
<u>STAFF QUARTERS</u>		
New Staff Quarters	23	5750
Total Capacity	170	42,500 Litres

Usage of electric geysers equivalent to 240 nos. are totally avoided in Hostels and New Staff Quarters. This saves energy to the tune of 17Lakhs.

ii) Energy Conservation measures

LED Light fittings in BSAR Crescent Institute Campus

NO	BUILDING	QTY	TOTAL WATTS
1	Auditorium SL	156	2059
2	Science Block	250	2829
3	Aero Block	458	5064
4	Main Block	34	482
5	MBA Block	11	165
6	First Year Block	7	105
7	Life Science Block	37	543
8	Staff Quarters	301	3685

NO	BUILDING	QTY	TOTAL WATTS
9	Ladies Hostel	249	3474
10	Campus Street Light	77	1800
11	Medical Centre	21	309
12	Architecture Block	13	601
13	Estate Office	21	420
14	Canteen	12	312
15	VC Office	72	450
16	VC Villa	27	193
17	Guest Houses	17	280
TOTAL		1763	22771

LED light fixtures are being extensively used for all new interior renovation works in the campus. So far, 22.7KW capacities of LED lights are fixed which provide around 30% energy saving compared to conventional lighting.



B.S. Abdur Rahman

Crescent

Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956

GST Road, Vandalur, Chennai 600 048

Office of DEAN (Research)

Annual Report

2018-19

**Activities of
Office of Dean (Research)**

July 2019

The vision of the office of research is to strive to make the institution as a **Research Intensive Institution** through various quality enhancement and sustainable initiatives. As reflected in the vision statement of the B.S. Abdur Rahman Crescent Institute of Science and Technology, research remains one of the major areas of focus. The Institution has a well-established administrative structure to ensure quality research. The Research Advisory Committee and Research Board comprising eminent researchers in the field of Science, Engineering and Technology give directions to the overall research activities of the institute.

All the departments in various schools are offering Ph.D. programmes. Out of **370** faculty members, **173** are with Ph.D. qualification and **125** are pursuing Ph.D. in BSA Crescent Institute of Science and Technology and other Universities. At present, **510** research scholars are on-roll and **66** scholars have been already awarded Ph.D. degree. With an intention to promote quality research, the Institution offers JRF and SRF fellowships to 29 research scholars and another 21 scholars are securing fellowships from government funding agencies such as CSIR / DST / UGC / MNAF/WOS etc.,.

For the benefit of full time research scholars who are not receiving any kind of fellowships, **Earn while you learn scheme** is introduced. The full time scholars who are assisting the lab sessions are paid with remuneration of Rs.300/- per hour.

The progress made in the research front, after becoming Deemed to be University is commendable. The Scopus **h-index** of this Institution is currently **42**, which has increased from 11 in the year 2008. The average citation index is 5.594. More than **3000** research publications have been made in refereed journals and conference proceedings during the last six years.

The departments are equipped with the state-of-the-art equipment and softwares for carrying out research. The annual budget for the departments include a separate head, "R&D" and adequate funds are sanctioned to strengthen and enhance the facilities A separate Centre for Sponsored Research and Consultancy has been created in B.S. Abdur Rahman Crescent Institute of Science and Technology which is responsible for the promotion of Sponsored Research, Industrial Consultancy and Patent filing. Institution also has Innovation centre, Incubation centre and Nano centre.

The library has over 17,000 e-journals including IEEE, ASME, ASCE, Springer, Elsevier, Emerald, Proquest etc., and a good collection of Open Access Journals which can be remotely accessed from anywhere.

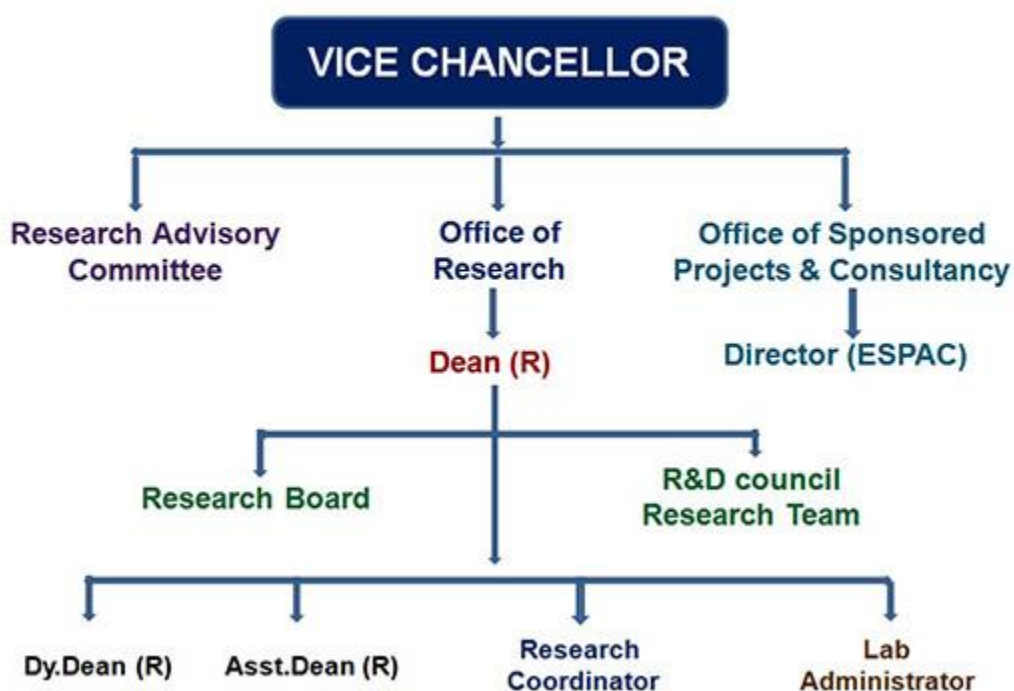
Research Board

The Research Board is an Internal Committee to oversee the academic research activities of the Institution. The major functions of the Research Board are:

- Scrutiny and recommendation of the names of faculty members for approval by the Vice Chancellor to act as Supervisors, for Ph.D. / M.Tech. (By Research) / M.Phil. Scholars.
- Scrutiny and recommendation of Ph.D. / M.Tech. (By Research) / M.Phil. Scholars application after interview by the various committees for final approval by the Vice Chancellor
- Determination of equivalence of PG educational qualifications, regulations etc. and other related matters.

Apart from Research Board, the institute has a well organized structure for research and Vice chancellor is the chairman. Each research category mentioned above is monitored by Dean (Research), Director (ESPAC) and CEO (CIIC) respectively. The research Board formulates and updates research policies as per the UGC norms, recommends faculty for approved research supervisors, takes all strategic decisions. The Institute – Administrative structure for monitoring research activities is given below.

RESEARCH ADMINISTRATIVE STRUCTURE



ACHIEVEMENTS OF STUDENTS / SCHOLARS:

❖ Ph. D. Degree from BSACIST.

- **Twenty six** Ph.D. scholars and **Two** M.Tech (By Research) scholars were awarded degree during the Eighth Convocation held on 16.12.2018. The details of the awarded scholars are as follows:

Sl. No.	RRN No.	Title of the Thesis	Name of the Scholar	Name of the Supervisor
1.	1086210	Adaptive trust model with attestation for software services in cloud environment	Mr. S. Udhaya Kumar	Dr. Latha Tamilselvan,
2.	1192204	Teaching Academic Writing to the Students of Engineering using Multimedia Tools an Experimental Study	Mr. Vijayakumar. S	Dr. A. Shahin Sultana
3.	1289214	Analysis of Risk factors of Heart Disease Using Decagonal Fuzzy Models	Ms. A. Divya	Dr. P. S. Sheik Uduman
4.	0994201	Enhanced Routing and Queue Management Techniques for Performance Improvement in Mobile Ad hoc Networks	Mr. M. Syed Masood	Dr. P. Sheik Abdul Khader
5.	0994202	Integrated Proactive and Reactive Failure Handling Strategies to improve the Services in Computational Grid	Ms. P. Latchoumy	Dr. P. Sheik Abdul Khader
6.	1086214	Development of Confidentiality, Integrity, Authentication Model for Assuring Data Security in Cloud Computing	Ms. P. Veeralakshmi	Dr. Latha Tamilselvan
7.	1188201	A Concept of Plural Society in Quran and Hadeeth	Mr. S.A. Usman Ali	Dr. P.S. Syed Masood Jamali
8.	140903101003	Synthesis and Characterization of Rare Earth Doped Molybdate and Tungstate Phosphors for Lighting Applications	Mr. Mahalingam V	Dr. I. Raja Mohamed
9.	1390118	Nano Composite Thin Films	Ms. A. Sathiya Priya	Dr. I. B. Shameem Banu
10.	1384118	Analysis on the Performance of Energy Efficient Routing and Fault-Tolerant Data Aggregation Algorithms for Wireless Sensor Networks	Ms. V.K. Subhashree	Dr. C. Tharini
11.	0991205	Synthesis and characterization of imidazole derivatives	Mr. R. Jaya Prakash	Dr. D. Easwaramoorthi
12.	1187205	Client Aware Cloudlet Framework in a Service Cloud Environment	Ms. Uma Nandhini. D	Dr. Latha Tamilselvan
13.	141153107003	Biophysical analysis and investigation of the immunomodulatory and mitogenic facets of jacalin, a dietary lectin	Ms. Lavanya V	Dr. Shazia Jamal
14.	1186223	Performance Enhancement Techniques of Voice Over IP Telephony	Ms.Saira Banu	Dr. R. Shriram
15.	130873707001	A Multi Criteria Recommendation Engine for Cloud Renderfarm Services	Mrs. Ruby Annette J.	Dr. W. Aisha Banu
16.	141153107006	Screening of the Antioxidant, Anticancer, Antimetastatic and Immunomodulatory Activities of Marine Algae in Cancer	Ms. Fazeela Mahaboob Begum S M	Dr. S. Hemalatha
17.	1391140	Synthesis and Characterization of Functionalized 1,2,3-Triazoles Through Azide-Olefin [3+2] Cycloaddition	Mr. D. Gangaprasad	Dr. K. Karthikeyan

18.	1087202	Externalization of Expert's Knowledge in E-learning Environment	Mr. P. Gnanasekaran	Dr. T. R. Rangaswamy
19.	1094205	Personalized and Optimal Ranking System for Recommendation in heterogeneous Social Media Environment	Ms. Shreedevi G.	Dr. M. Munir Ahamed Rabbani
20.	1187204	Relative Stability based Routing Protocol for Mobile Ad Hoc Network	Ms.Shakkeera L	Dr. Latha Tamilselvan
21.	1194209	Efficient Contrast – Enhancement Methodologies Based on Modified Histogram Equalization Technique for Improving Face Recognition Accuracy	Mr. A. Abdul Azeez Khan	Dr. P. Sheik Abdul Khader
22.	1194211	Programmed Cell Death and Autophagy Mechanisms are Critical Players During Saline Stress in Oryza Sativa L	Mr.K.Javubar Sathick	Dr. A. Jaya
23.	131153701003	Energy-efficient Adaptive Optimization Framework for Mobile Cloud Computing	Mr. Mohd Shahanbaj Khan	Dr. S. Hemalatha
24.	10994203	Enhanced Hybrid Classifier Techniques using Grey Wolf Optimization for Improved Detection Accuracy	Ms. Vidhya Sathish	Dr. P. Sheik Abdul Khader
25.	1392106	Teaching English to the Children (Upper Primary Level) of Government Schools in Jammu and Kashmir State through Task-Based Approach: An Experimental Study	Mr. Nazir Ahmad Mir	Dr. A. Shahin Sultana
26.	1181206	Study and Analysis of Appropriate Spot Weld Distribution among the Welding Stations of Body Shop to improve Quality and Productivity	Mr. Selvam G.	Dr. S. Prince Arockia Doss
M.Tech (By Research)				
27.	1260202	Development and performance Evaluation of Polymer Based Heat reflective waterproofing system	Mr. Eliass A Latiff	Dr. M. S. Haji Sheik Mohammed
28.	1260201	Strength and Durability Studies on Ferrocement Slab Panels for Suspended Roof	Mr. M. Mohamed Ibrahlim	Dr. M. S. Haji Sheik Mohammed

❖ Viva-Voce Exam completed

- **Ten** Ph.D. scholars have completed the Viva Voce Examination.

Sl. No.	Name	Dept.	RRN	Name of the Supervisor	Date of Viva Voce
1.	Ms. J. Hemalatha	Management Studies	1093209	Dr. S. Panboli	18.02.2019
2.	Mr. Zameer Gulzar	CA	140943701002	Dr. L. Arun Raj	22.02.2019
3.	Mrs. R. Mervin	CSE	1286229	Dr. A. Jaya	08.03.2019
4.	Ms. B. Vidhya	EEE	1383116	Dr. Y. Mohamed Shuaib	18.03.2019

5.	Mr. V. Thyagarajan	ECE	'0984201	Dr. S. Kaja Mohideen	26.04.2019
6.	Ms. S.V. Shri Bharathi	CSE	1186227	Dr. Angelina Geetha / Dr. Md. Khurshid Alam Khan	08.05.2019
7.	Mr. D. Mukundan	Chemistry	1191224	Dr. S. Kutti Rani	09.05.2019
8.	Ms. D. Buvana	EEE	1083205	Dr. R. Jayashree	27.05.2019
9.	Mr. S. Baskar	Mechanical	1381118	Dr. S. Prince Arockia Doss	26.06.2019
10.	Mr. J. Purushothaman	Mechanical	1381119	Dr. S. Rasool Mohideen	03.07.2019

❖ Thesis Submitted

- **Eighteen** Ph.D. scholars have submitted their Thesis and sent for evaluation

❖ Synopsis Submitted

- **Ten** Ph.D. scholars have submitted their Synopsis

❖ Pre Synopsis Review completed

- **Twelve** Ph.D. scholars are recommended for Synopsis submission after Pre Synopsis Review Committee meeting.

Turnitin Information in May 2018

- **All the final year students of U.G and P.G used to verify their project report in turnitin software.**

Overview

Submissions



High Similarity Reports*



Ph.D. Admission

- Admission for the Ph.D. programme is twice in a year, i.e, during **January & July**.
- The application form from can be obtained from the office of Director (Admissions) of B.S. Abdur Rahman Crescent Institute of Science & Technology or can be downloaded following website link <http://www.crescent.education/admission-for-research-scholars>
- The filled in application along with a Demand Draft (DD) for Rs.1,000/- (Rupees One Thousand only) should be submitted to

Director (Admissions),
B.S. Abdur Rahman Crescent Institute of Science & Technology,
Seethakathi Estate, Vandalur, Chennai-600048,
Phone:+91-44-22759236 / 22759200 / 9543277888, Extn: 122 / 124 / 223

- For Enquiries, please contact
- admissions@creseent.educatiobn
- dean.academicresearch@creseent.education

Schedule of Admission events

- Schedule of Ph.D. Admission process for Ph.D. Programme will be uploaded in the Institution Website **two months** in advance to the admission every semester.

The schedule followed in the January 2019 session is shown below

S.No.	Description	Date	Day
1	Ph.D. admission advertisement will be released in Institution website	17.10.2018	Wednesday
2	Ph.D. admission advertisement will be released in News Papers	14.11.2018	Wednesday
3	Last date for submission of application	30.11.2018	Friday
4	Dispatch of applications to respective departments for scrutiny and to find out the eligibility	05.12.2018	Wednesday
5	Individual departments will submit the list of eligible candidates to the office of Dean (R)	06.12.2018	Thursday
6	Call letters will be sent to the eligible candidates by e-mail / post	10.12.2018	Monday
7	Entrance examination and interview	19.12.2018	Wednesday
8	Submission of "Minutes of the department selection committee" to the office of Dean (R)	20.12.2018	Thursday
9	Vice Chancellor's approval for the selection of Research scholars	21.12.2018	Friday
10	Publication of Results in our Institution website	26.12.2018	Wednesday
11	Admit card will be sent to selected candidates by e-mail / post	27.12.2018	Tuesday
12	Admission to Ph.D. Programme for Jan 2019 session	03.01.2019	Thursday

Foreign Candidates Ph.D. Admission:

Around **ten** candidates from Ghana country was admitted in Jan 2019 session. They will come and join in July month and stay here for every four months in a year to complete their course works.

Faculty members pursuing Ph.D.

No. of full time regular faculty	–	370
No. of faculty with Ph.D. qualification	–	173
No. of faculty pursuing Ph.D.in BSACIST	–	100
No. of faculty pursuing Ph.D.in other universities	–	25
No. of Approved Research Supervisors	–	131

- The research scholars of B.S. Abdur Rahman Crescent Institute of Science & Technology are encouraged to publish research papers only in Peer Reviewed (Refereed) Indexed Journals with high impact factor.
- Advised to avoid publications in Predatory Journals.

List of Journals detail is available in the following Institution website

<http://www.crescent.education/List-of-Journals>

- Scopus Indexed Journals list – May 2019
- Potential Predatory Journal & Publishers as per Beall
- Journal Impact Factor – 2018
- Link for Web of Science indexed journals
- Articles with at least 10 citations

Research Publications

- A significant number of papers based on the research work and project works have been published by the faculty members and the research scholars in International and National Journals.
- Apart from these, they present papers in International and in National Conferences.

Research Output

No. of publications in Journals for the year 2018 **269**

No. of publications in Conference proceedings for the year 2018 **110**

	International Journals	National Journals	International Conference Proceedings	National Conference Proceedings
Indexed	201	40	20	01
Non Indexed	11	17	83	06
Total Publications: 379				

Citation Trend

- **Scopus h – index** **42**
- **Scopus citation** **1513**
- **No. of Citation** **9304**
- **Average Citation index** **5.594**
- **Average Impact factor** **1.554**

Scopus h-index of BSACIST= 42			
S.NO	SCHOOL	DEPARTMENT	SCOPUS H-INDEX
1	School of Mechanical Sciences	Mechanical Engineering	12
		Automobile Engineering	2
2	School of Infrastructure	Civil Engineering	5
3	School of Physical And Chemical Sciences	Physics	26
		Chemistry	18
4	Crescent School of Business		2
5	School of Electrical and Communication Sciences	Electrical & Electronics Engineering	13
		Electronics & Communication Engineering	7
		Electronics & Instrumentation Engineering	6
6	School of Computer, Information And Mathematical	Computer Science & Engineering	8
		Information Technology	7

	Sciences	Computer Applications	6
		Mathematics & AS	9
7	School of Life Sciences		11
8	Polymer Nano Technology Centre		12

Consolidated table

Description	No.
No. of Scholars pursuing Ph.D.	510
No. of M.Tech (By Research) Scholars	3
Faculty members pursuing Ph.D. (Internal)	100
No. of candidates admitted for Ph. D. Programme in July 2018 session	19
Thesis Submitted in the year January 2018	18
No. of Ph.D. degree awarded in the year 2018	26
No. of Scholars who submitted Synopsis in the year 2018	10
No. of BSA fellowships for Ph.D. Scholars	29
No. of Govt. fellowships	21
No. of Research Supervisors in BSACIST	131

Research Publications with more than 10 Scopus Citations

- Research Paper with Highest number of citations = 219
- No. of papers with more than 10 Scopus citations = 225

Research Activities

- Three days Workshop on “**Writing Quality Research Articles, Project Proposals and Patents**” (20 - 22 JULY 2018) Dr. Subhendu Chakrabarti, Chief Scientist, CLRI and Dr. Nikhil A Gokhale, Enago Academy, Mumbai are external resource persons and provided inputs on patenting process.



- A seminar on “**How to write project proposal in International collaboration projects**” organized on 2nd November 2018. Dr. C. Sivaji, senior scientist, Head, International Division, Department of Science and Technology (DST), Govt. of India, New Delhi was the resource person. He gave a talk on sharing all DST activities to promote Science and Technology in India. He also discussed on various topics of interest for sponsored R&D projects and also international collaboration projects.



- Onsite training Seminar on “**Turnitin’s User Awareness Program & Similarity Check**” on 20.11.2018. Mr. Akshay Prasanna, Customer Success Manager – Turnitin was the speaker started off right away, by clarifying what is plagiarism and its effect to an Institution?



- Introduction to **Anveshan- Student Research Convention** – 2019 was organized on 5th December 2018. Prof. T Hariharanarayana sir has addressed all the research scholars regarding importance of Anveshan- Student Research Convention – 2019.



- One Day Workshop on **Qualitative Writing of Sponsored Project Proposals** held on 04-01-2019. The Resource Person was Dr. K. Gopalakrishnan, Dean (Research & Development), from New Horizon College of Engineering, Bangalore.



- A one-day Workshop on **“Data Analysis and Visualization Using R”** was held on 14th March 2019 for internal faculty members. The program was addressed by Dr. A. Azad, Registrar, Prof. T Harinarayana, Director and Dr. K. Prabhakar, Research Coordinator in the programme.



- Two Days workshop on **“Data Analytics and Data Visualization using R** was held during 21st and 22nd February 2019. Dr. K. Prabhkar, Dr. E. Syed Mohamed, Mr. R. Pari, Ms. B. Pushpa, and Ms. V. Jean Shilpa delivered the lecture to external candidates.



Thesis Awarded Degree

- No. of Ph.D. Thesis Awarded Degree: **26 Nos.**
- Department wise details are shown in table

S.No	Department	No.
1.	Chemistry	2
2.	Civil	0
3.	Computer Applications	6
4.	CSE	3
5.	ECE	1
6.	English	2
7.	Information Technology	4
8.	Islamic Studies	1
9.	Life Sciences	3
10.	Mathematics & AS	1
11.	Mechanical	1
12.	Physics	2
	Total	26

FUTURE PLAN

- To attract International scholars to pursue collaborative quality research
- To offer Post Doctoral Programme in all the departments
- To achieve a h-Index of 100 in the next 10 years
- To become an Institution with all faculty members having Ph.D. Qualification
- To initiate more Collaborative research work with premier Universities & Industries
- To create more centres of excellence for advanced studies and research



B.S. Abdur Rahman
Crescent
Institute of Science & Technology
Decreed to be University U.S. 2 of the USC Act, 1992

- A Research Intensive Institution

Research @ Crescent **Bulletin (2018)**



Editors

I. Raja Mohamed
E. Syed Mohamed
R. Amiruddin

*Empowering CRESCENT
through Exemplary Research*

Office of Dean (Research)

**B.S. Abdur Rahman Crescent Institute of
Science and Technology (BSACIST)**
Chennai-600048 Tamil Nadu, India



B.S. Abdur Rahman

Crescent

Institute of Science & Technology

Deemed to be University u/s 3 of the UGC Act, 1956

- A Research Intensive Institution

Research @ Crescent Bulletin (2018)



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Chennai-600048 Tamil Nadu, India

**TAN SRI DATO' SRI PROF. IR. DR. SAHOL HAMID BIN
ABU BAKAR**

*D.Phil. (C.Eng) (Sussex), Dr.-Ing.E.h.(Stuttgart),
Dr.Sc.(Sussex) AMP, INSEAD (France), M.Sc. (C.Eng) (Colorado),
Msc. (Econs) (Colorado), B.Eng (Hons) (ITM), FASc, FIEM, P.Eng
Emeritus Professor of Civil Engineering, UiTM, Malaysia
Professor of Water Resources, University of Stuttgart, Germany*

Vice Chancellor

**B.S.Abdur Rahman Crescent Institute of Science and
Technology**



Foreword

B.S.Abdur Rahman Crescent Institute of Science and Technology recognizes its responsibility to offer quality research contributions to the global research community. Research and development undertakings would facilitate dissemination of knowledge and provide international visibility to our Institution. In this context, I am delighted to see the Research @ CRESCENT Bulletin highlighting the research activities carried out during the academic year 2018. The consolidated research activities reported in this bulletin will be a testimony to the sustained effort contributed by faculty members and scholars of Crescent.

I welcome the initiative taken by Dean (Research) and team towards bringing out Research @ CRESCENT Bulletin-2018 report and I expect more research activities to be carried out for the forthcoming years.

Vice Chancellor

Dr.A.AZAD

Registrar

**B.S.Abdur Rahman Crescent Institute
of Science and Technology**



Message

B. S. Abdur Rahman Crescent Institute of Science & Technology (BSACIST) works towards bringing out cutting edge and high-quality research. Research @ Crescent Bulletin 2018 is one of the affidavits to prove that Crescent is marching auspiciously towards establishing it as a full-fledged research institution.

All the research contributions from the research scholars and faculty members of BSACIST in the form of SCI indexed research publications, sponsored projects and consultancies are highly acknowledged and also appreciated exceptionally. Crescent will continue its support to all such research contributions with the focus towards strengthening the research wing of our Institute.

With good pace, focused determination and complete dedication let us move forward in bringing out more research outcomes for the forthcoming academic sessions.

Registrar

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About the office of Dean (Research)

- B.S.Abdur Rahman Crescent Institute of Science and Technology (BSACIST), A **Research Intensive Institution** lays greater emphasis on academics and research in its endeavor to become a premier institute contributing to the Scientific and Technological development of our Country.
- The Institute has a well-established administrative structure to ensure quality research with various committees, namely, **Research Advisory Committee (RAC), Research Board, R&D council and Research Team.**
- **Research Advisory Committee (RAC)**, comprising eminent researchers from other universities and industries in the field of Science, Engineering and Technology, which gives directions to the overall research activities of the Institution.
- Under the guidance of the RAC, **Research Board** formulates the overall research policies and thrust areas. The Deans of all the School in the Institute are the members.
- In addition, each School has a **Research and Development (R&D) council** to initiate and monitor the research activities of the department.
- **Research Team** prepares the project proposals for the government funding agencies. It also motivates and helps the other faculty members in the preparation of proposals
- The annual budget of the departments includes the fund required to procure the equipment, software and seed money for faculty members and research scholars to carry out the research
- There are **66 Institute Fellowships namely, junior research fellowship (JRF) and senior research fellowship (SRF)** available in all the Departments, to lure bright youngsters to take up research activities on full time basis. **Earn while you learn scheme** for full time research scholars is also available
- Research starts with an idea and an idea to various innovations. The **Centre for Innovation, APJ Abdul Kalam Innovation Centre** now became Crescent Innovation & Incubation Council (CIIC) is working closely with Research Team to transform the research towards Entrepreneurship, Patents and Startups

- All the Departments are equipped with state-of-the-art equipment and software for carrying out research. The library has over 17,000 e-journals including *IEEE, ASME, ASCE, Springer, Elsevier, Emerald, Proquest* etc., and a collection of Open Access Journals, apart from 92,000+ References & Textbooks.

To succeed in your mission, you must have single-minded devotion to your goal

-APJ Abdul Kalam

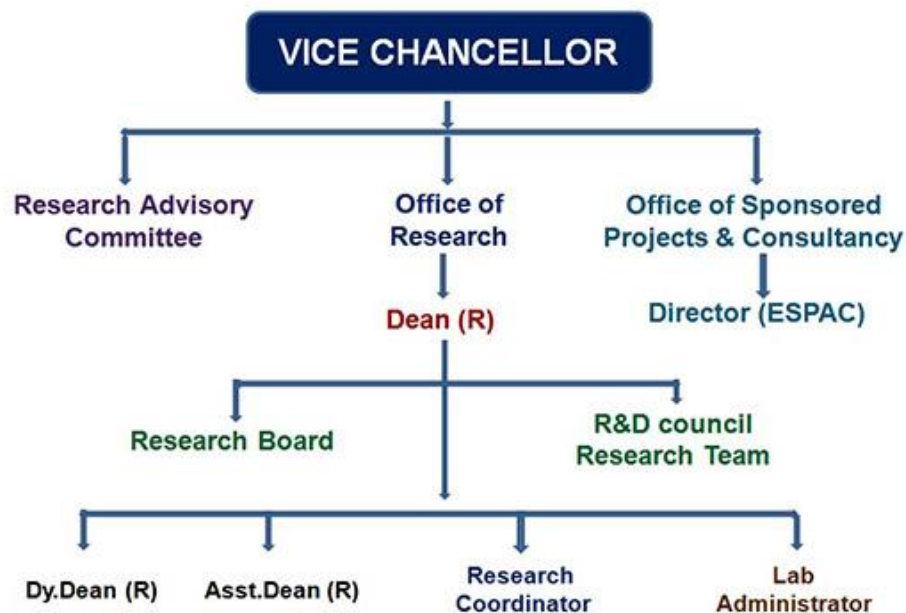


Organizational Scope

B.S.Abdur Rahman Crescent Institute of Science and Technology has a well-organized structure for research and Vice chancellor is the chairman. The total Research and Development activities are organized into the following three categories.

- Academic Research (Ph.D. Programme)
- Sponsored Project and Consultancy
- IPR and IIC

RESEARCH ADMINISTRATIVE STRUCTURE



Research Mentors and Supporters



Dr. I. Raja Mohamed
Dean (Research) & Professor/Physics



Prof. T. Harinarayana
Director, ESPAC
(Energy, Sponsored Projects & Consultancy)



Dr. Md Khurshid Alam Khan
Deputy Dean (Research) &
Assistant Professor(S.G)/Life Science



Dr. E.Syed Mohamed
Assistant Dean (Research) &
Associate Professor/CSE



M. Parvez Alam
CEO, Crescent Innovation & Incubation Council
(CIIC)



Dr. R. Amiruddin
Assistant Professor/Physics

Without data, you're just another person with an opinion.

-W. Edwards Deming



- All the faculty members are encouraged to **conduct research** in the focused as well as interdisciplinary areas of research.
- Faculty members are appreciated with appropriate monetary incentives for their publications in either **WEB of Science and Scopus indexed journals** and the fund received from the government funding agencies for the project proposals.
- Faculty members with Master Degree are permitted to pursue **Ph.D. under Part Time mode** in the B.S.Abdur Rahman Crescent Institute of Science and Technology and other reputed institutions with full salary.
- The institute has set **KPI for faculty members** to publish research articles.
- The **UG and PG projects** shall be research focused and lead to publications in the indexed journals.
- Every faculty member with Ph.D. qualification shall apply for **a minimum of one funded project**. The required seed money for internal projects will be provided by the Institution.

I am the master of my failure... If I never fail how will I ever learn

-CV Raman



Major research facilities available at BSACIST

Name of the Equipment			
1.	Q switched High Energy Nd :YAG (850 mJ) LASER	2.	XRD (Bruker – D8 Focus)
3.	Microprocessor controlled UTM. of 100T capacity	4.	Dynamic Mechanical Analyzer (DMA)
5.	Photo Elastic Test setup	6.	Thermo Gravimetric Analyzer (TGA) – SEIKO model

7.	Advanced Tri-axial shear strength test equipment with pore pressure measuring unit	8.	Electrospinning unit (ESPIN)
9.	CNC Turning Center and Vertical Machining Center for machining experiments	10.	Ultra Cryostat circulator
11.	Load cells & strain gauge indicators, Vibration sensor, Acoustic Emission sensor and vibration shaker	12.	FTIR
13.	Versamax PLC for automation with software	14.	Atomic Absorption Spectrophotometer
15.	Data Acquisition System and Exhaust Gas Analyzer for engine testing	16.	EPM 2000 Dual channel power/Energy meter, OSM2 Series Spectrometer
17.	High speed digital storage oscilloscope with GPIB interface for data acquisition	18.	Multi-frequency Ultrasonic Interferometer Research type (1 – 2 MHz)
19.	Image analyzer with CCD camera for microstructure analysis, Tool makers microscope and Coordinate measuring machine surface roughness tester	20.	Fluorescence Spectrophotometer
21.	Low speed wind tunnel	22.	P – E Loop Tracer
23.	Swirl injector Test rig	24.	Pulsed Laser Deposition Unit (PLD)
25.	Rocket Fuel sampling and Firing setup	26.	High temperature furnace – 1400 ⁰ C
27.	Drones and UAV modelling	28.	Spray Pyrolysis unit
29.	Three Tank Interacting Level Process with Closed loop Control Setup	30.	LCR meter
31.	pH neutralization setup	32.	Polarimeter
33.	Multi process trainer	34.	Diode array Spectrophptometer
35.	PLC, Drilling operation using PLC	36.	Photoreactor

37.	Electroporator	38.	UV – Vis – NIR Spectrophotometer
39.	Harmonic Analyzer	40.	Beam Load Frame of 100T capacity for testing beams up to 3m span.
41.	Design and Analysis of 3-phase inverter drives	42.	Column Load Frame of 100T capacity for testing columns up to 2m height with provisions for axial and lateral loadings.
43.	Power Electronics and Drives. – Modeling, Analysis, Simulation and Prototype of Power Electronic Devices, Electrical Machines and Drives	44.	Pin on disc set up, salt spray apparatus and semi micro balance for wear and corrosion testing
45.	Fibre optic trainer	46.	Flow Table motorized for concrete
47.	Antenna trainer with software	48.	Trimble focus total station with accessories
49.	IAR Embedded work bench	50.	GPS Q mini serial



Laser ablation vacuum coating unit



Q switched Nd:YAG LASER



Electrospinning unit (ESPIN)



Box Furnace



Atomic absorption spectrophotometer



PE Loop tracer



UV-visible Spectro Photometer



Diode Array Spectrophotometer



Differential Scanning
Calorimeter (DSC)



Oscillating Disc
Rheometer (ODR)



CNC Turning Center
BATLI B01



Fluorescence
Microscope



Chemi-luminescent
unit



Real-time PCR



Thermostat C



Cryogenic
Chamber



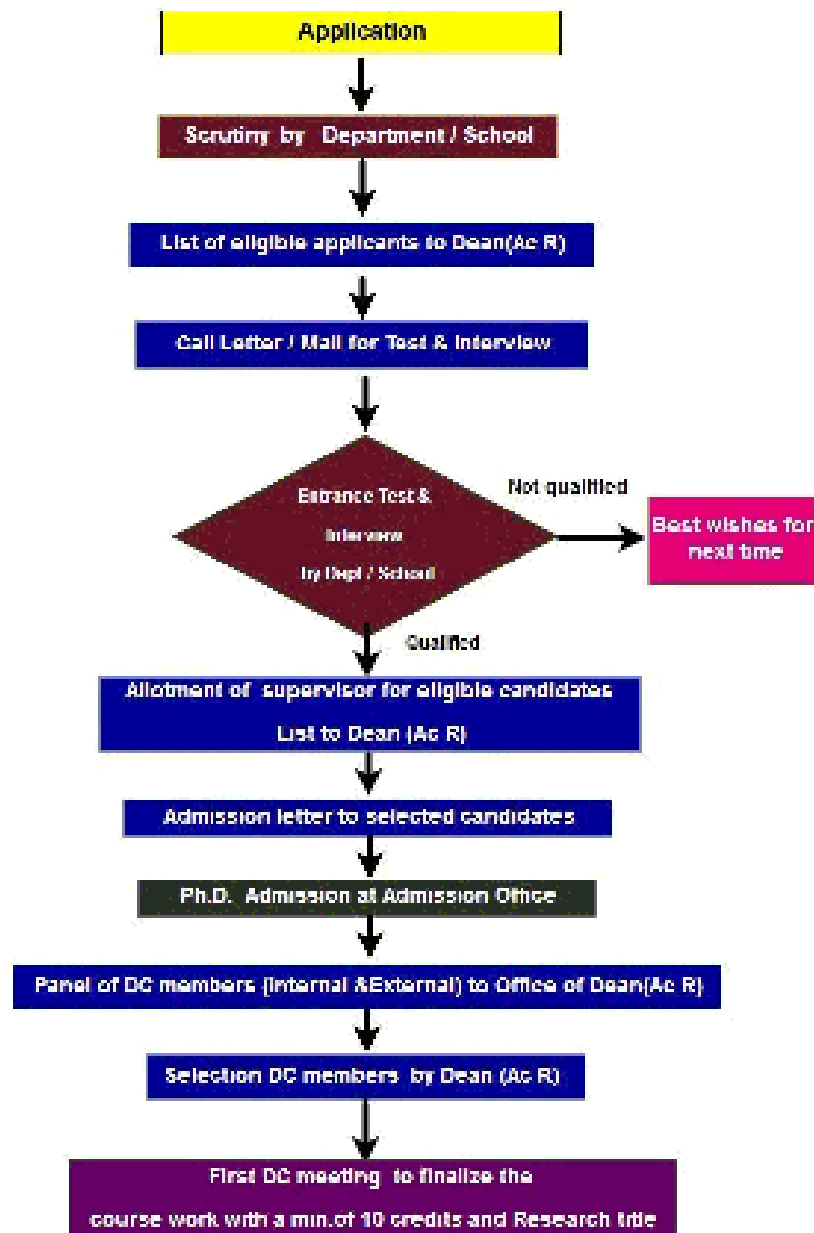
Photoresist
spinner

Softwares for research

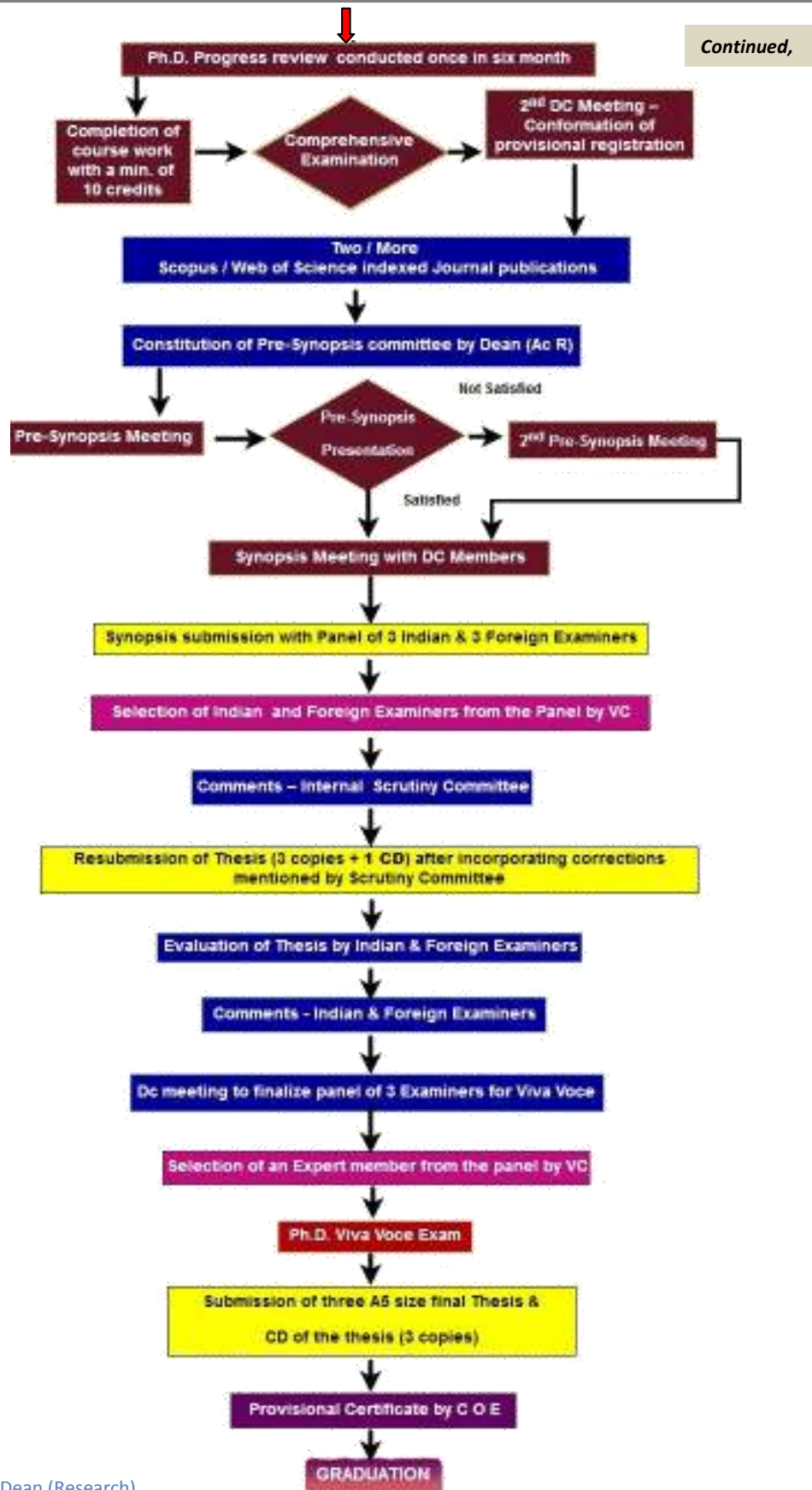
1.	Qualnet	2.	IE3D Antenna simulation software
3.	Adobe enterprise	4.	MDSPICE MIC Simulation
5.	IBM DB2, IBM Cognos Insight	6.	Mentor Graphics HEP1 pack
7.	MATLAB 2012	8.	SCADA software
9.	UBUNTU, NS2, HADOOP, PYTHON	10.	ANSYS V 18.1 – CFD and Structural stimulation
11.	MOLDEX	12.	Sinfire X4200 server for CAD APPLICATIONS
13.	VLSI- MODELSIM	14.	GIS – Mapping software and MATHCAD

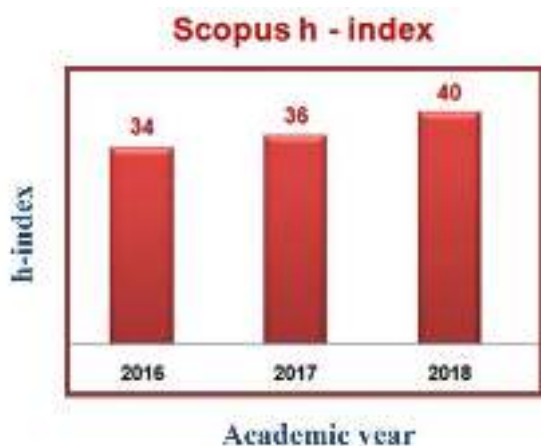
Ph.D. programme-flowchart

Candidates seeking Ph.D. program (full time/part time) should have successfully completed two years Master's (or) M.Phil Degree from any accredited Indian or Foreign Institutions in the relevant field. The candidates should have obtained minimum of 55% marks or equivalent in the Master's or M.Phil degree. Various process involved in successful completion of Ph.D. degree is given below:



Continued,





Citation details

Total number of <i>Research publications</i>	: 4730
Total number of <i>Citations</i>	: 8580
Average <i>Citation index</i>	: 5667
Average <i>impact factor</i>	: 1.541
No. of Papers with more than <i>10 SCOPUS citations</i>	: 220
Research paper with <i>highest SCOPUS citations</i>	: 210
SCOPUS <i>h-index</i>	: 40

Research outcomes (2018)

Number of research publications in Scopus Indexed Journals	: 139
Number of Conference Publications	: 36
Number of Book Chapters published	: 5
Number of Review articles published	: 4
Research Paper presentations in Conference/Workshop/Seminars and Symposium	: 28
Participations in Conference/Workshop/Seminars and Symposium	: 27

List of research articles published in Scopus Indexed Journals**Number of research publications in Scopus Indexed Journals: 139**

- 1) Paul Raj, J., Gangaprasad, D., Karthikeyan, K., Rengasamy, R., Kesavan, M., Venkateswarulu, M., Vajjiravel, M., Elangovan, J. *A new route to synthesis of substituted pyrazoles through oxidative [3+2] cycloaddition of electron deficient alkenes and diazocarbonyl compounds* (2018) Tetrahedron Letters, 59 (51), pp. 4462-4465.
- 2) Gangaprasad, D., Raj, J.P., Karthikeyan, K., Rengasamy, R., Elangovan, J. *An Efficient One-Pot Synthesis of 1,2,3-Triazole-Fused Chromenes/Quinolines via Oxidative [3+2] Cycloaddition followed by Reductive Cyclization* (2018) Advanced Synthesis and Catalysis, 360 (23), pp. 4485-4490.

After all, the ultimate goal of all research is not objectivity, but truth

-Helene Deutsch



- 3) Thahirunnisa, S.R., Shameem Banu, I.B. *Optical properties of novel ASiP 2 (A=Ca, Sr) chalcopyrites: first-principle study* (2018) Applied Physics A: Materials Science and Processing, 124 (12), art. no. 801,
- 4) Rajan, B.S., Balaji, M.A.S., Sathickbasha, K., Hariharasakthisudan, P. *Influence of binder on thermomechanical and tribological performance in brake pad* (2018) Tribology in Industry, 40 (4), pp. 654-669.
- 5) Priya, S., Kumar, N.S., Hemalatha, S. *Antiviral phytochemicals target envelop protein to control Zika virus* (2018) Computational Biology and Chemistry, 77, pp. 402-412.
- 6) Manikandan, R., Jawahar, P.K., Rao, P.H. *Low Sidelobe Level CSRR Loaded Weighted Array Antenna (2018) IEEE Transactions on Antennas and Propagation*, 66 (12), art. no. 8466858, pp. 6893-6905.
- 7) Khan, M.S., Pandey, M.K., Hemalatha, S. *Comparative Studies on the Role of Organic Biostimulant in Resistant and Susceptible Cultivars of Rice Grown under Saline Stress -*

Organic Biostimulant Alleviate Saline Stress in Tolerant and Susceptible Cultivars of Rice
(2018) Journal of Crop Science and Biotechnology, 21 (5), pp. 459-467.

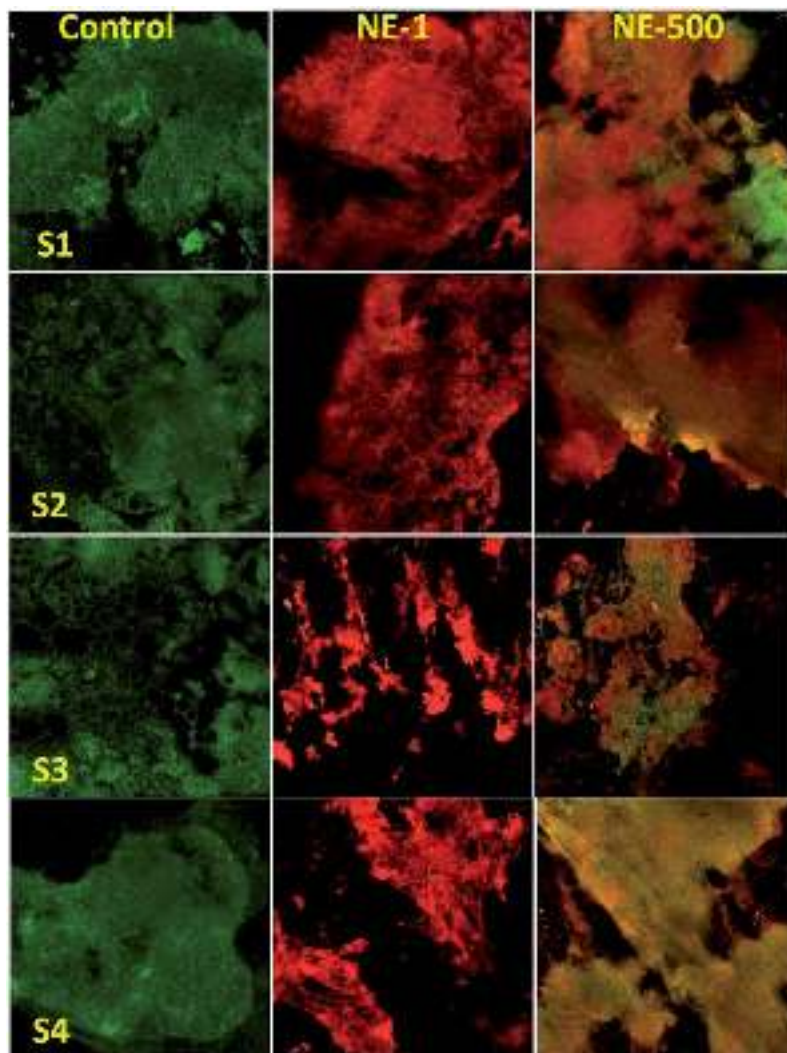


Effect of NaCl on root and shoot length of susceptible and tolerant cultivar in control and treated seedlings

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- 8) Kumar, M.S., Rajesh, K., Vijayaraghavan, G.V., Krishnan, S. *Structural and mechanical properties of diglycine perchlorate single crystals* (2018) Materials Science- Poland, 36 (4), pp. 733-738.
- 9) Krishnamoorthy, G., Alluvada, P., Alemayehu, E., Mohammed Sherieff, S.H., Addi, W.A., Kwa, T., Krishnamoorthy, *J. Log D analysis using dynamic approach* (2018) Biochemistry and Biophysics Reports, 16, pp. 1-11.
- 10) Andiappan, K., Sanmugam, A., Deivanayagam, E., Karuppasamy, K., Kim, H.-S., Vikraman, D. *In vitro cytotoxicity activity of novel Schiff base ligand-lanthanide complexes* (2018) Scientific Reports, 8 (1), art. no. 3054,
- 11) Joseph, J., Deshmukh, K., Chidambaram, K., Faisal, M., Selvarajan, E., Sadasivuni, K.K., Ahamed, M.B., Pasha, S.K.K. *Dielectric and electromagnetic interference shielding properties of germanium dioxide nanoparticle reinforced poly(vinyl chloride) and poly(methylmethacrylate) blend nanocomposites* (2018) Journal of Materials Science: Materials in Electronics, 29 (23), pp. 20172-20188.

- 12) Ramalingam, K., Lee, V.A. *Antibiofilm activity of an EDTA-containing nanoemulsion on multidrug-resistant Acinetobacter baumannii* (2018) *Artificial Cells, Nanomedicine and Biotechnology*, 46 (sup2), pp. 737-743.



Confocal micrographs of Acinetobacter baumannii biofilms (S1 BAA-1605; S2 ATCC-17961; S3 ATCC-19606 and S4 ATCC-19003) control (no treatment) NE-1 (nanoemulsion 1 dilution) and NE-500 (nanoemulsion 500 dilution). © (2018), Informa UK Limited, trading as Taylor & Francis Group, All rights reserved

- 13) Saravanakumar, K., Kathiresan, K., MubarakAli, D., Kayalvizhi, K., Rajendran, N., Hemalatha, S., Chen, J. *Soil-microbial communities indexing from mangroves rhizosphere and barren sandy habitats* (2018) *Physiological and Molecular Plant Pathology*, 104, pp. 58-68.

- 14) Ashraf, M.I., Ong, S.-K., Mujawar, S., Pawar, S., More, P., Paul, S., Lahiri, C. *A side-effect free method for identifying cancer drug targets* (2018) Scientific Reports, 8 (1), art. no. 6669,
- 15) Manokar, A.M., Taamneh, Y., Kabeel, A.E., Sathyamurthy, R., Winston, D.P., Chamkha, A.J. *Review of different methods employed in pyramidal solar still desalination to augment the yield of freshwater* (2018) Desalination and Water Treatment, 136, pp. 20-30.

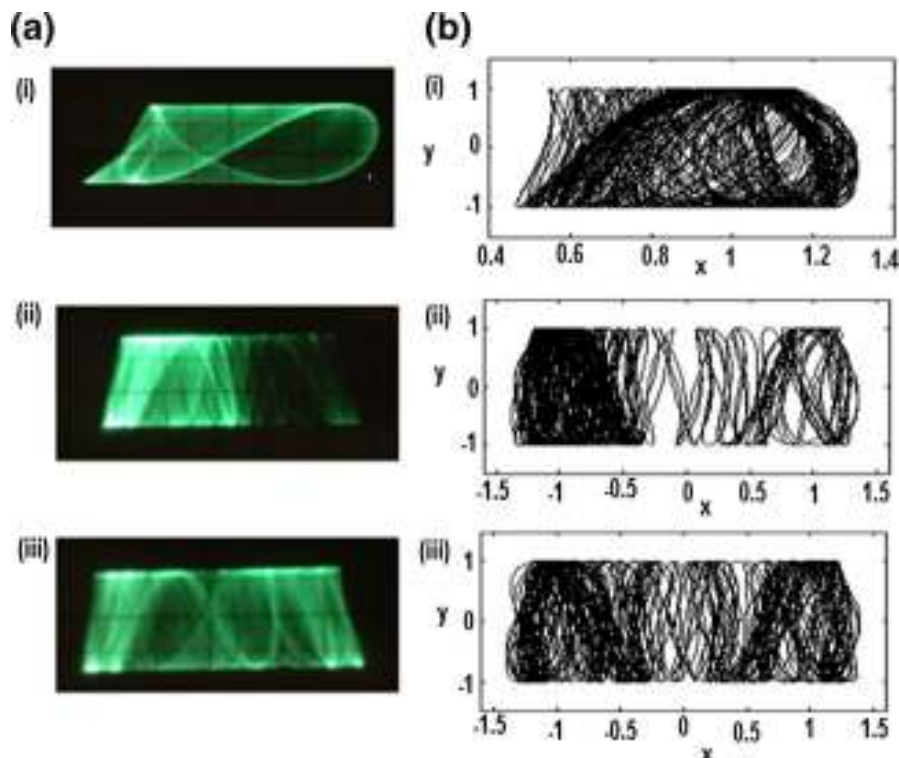
Academic success depends on research and publications
-Philip Zimbardo



- 16) Arulvani, M., Ismail, M.M. *Low power FinFET content addressable memory design for 5G communication networks* (2018) Computers and Electrical Engineering, 72, pp. 606-613.
- 17) Suresh Kumar, M., Rajesh, K., Vijayaraghavan, G.V., Krishnan, S. *Growth, structural and mechanical studies of phthalic acid single crystals grown in two different solutions* (2018) Materials Research Express, 5 (11), art. no. 115101, .
- 18) Avudaiappan, T., Balasubramanian, R., Pandiyan, S.S., Saravanan, M., Lakshmanaprabu, S.K., Shankar, K. *Medical Image Security Using Dual Encryption with Oppositional Based Optimization Algorithm* (2018) Journal of Medical Systems, 42 (11), art. no. 208.
- 19) Unnikrishnan, S., Khan, M.H., Ramalingam, K. *Dye-tolerant marine Acinetobacter baumannii-mediated biodegradation of reactive red* (2018) Water Science and Engineering, 11 (4), pp. 265-275.
- 20) Sarmila Har Beagam, K., Jayashree, R., Abdullah Khan, M. *A Market Center Based Clearing and Settlement of Pure Reactive Power Market in Deregulated Power System* (2018) Engineering Science and Technology, an International Journal, 21 (5), pp. 909-921.
- 21) Annette, J.R., Banu, W.A., Chandran, P.S. *A multi criteria recommendation engine model for cloud renderfarm services* (2018) International Journal of Electrical and Computer Engineering, 8 (5), pp. 3214-3220.
- 22) Raguraman, V., L., S.A., MubarakAli, D., Narendrakumar, G., Thirugnanasambandam, R., Kirubakaran, R., Thajuddin, N. *Unraveling rapid extraction of fucoxanthin from Padina*

tetrastromatica: Purification, characterization and biomedical application (2018) Process Biochemistry, 73, pp. 211-219.

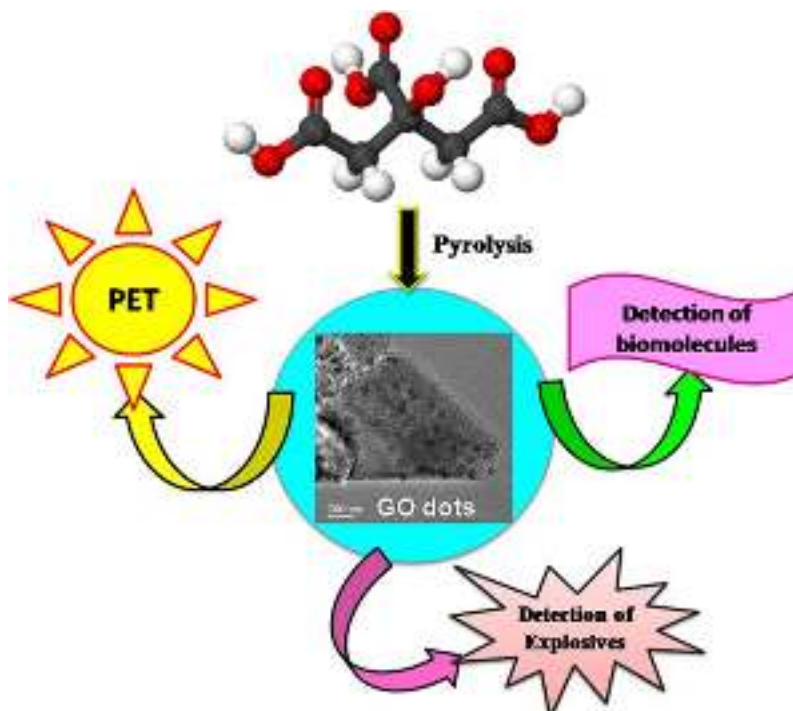
- 23) Rizwana, R., Raja Mohamed, I. *Strange nonchaotic dynamics of parametrically enhanced MLC circuit* (2018) Journal of Computational Electronics, 17 (3), pp. 1297-1302.



(a) Experimental and (b) numerical phase portraits: (i) torus ($fl = 0.01$), (ii) SNA ($fl = 0.11$), and (iii) chaos ($fl = 0.175$) © Springer Science+Business Media, LLC, part of Springer Nature 2018, All rights reserved

- 24) Rasool, U., S, P., Parveen, A., Sah, S.K., S, H. *Efficacy of *Andrographis paniculata* against extended spectrum $\hat{\beta}$ -lactamase (ESBL) producing *E. coli** (2018) BMC Complementary and Alternative Medicine, 18 (1), art. no. 244, .
- 25) Anitha, G., Ismail, M. *Detection of Choroidal Neovascularization Through Characterization of Changes in Anterior and Posterior Eye Segments* (2018) 3D Research, 9 (3), art. no. 37, .
- 26) Madhina Banu, D., *Aranganathan Study of load optimization and performance issues in cloud* (2018) Indonesian Journal of Electrical Engineering and Computer Science, 11 (3), pp. 1035-1041.

- 27) Srinivasan, V., Asha Jhonsi, M., Kathiresan, M., Kathiravan, A. *Nanostructured Graphene Oxide Dots: Synthesis, Characterization, Photoinduced Electron Transfer Studies, and Detection of Explosives/Biomolecules* (2018) ACS Omega, 3 (8), pp. 9096-9104.



Nanostructured Graphene Oxide Dots: Synthesis, Characterization, Photoinduced Electron Transfer Studies, and Detection of Explosives/Biomolecules © 2018 American Chemical Society, All rights reserved.

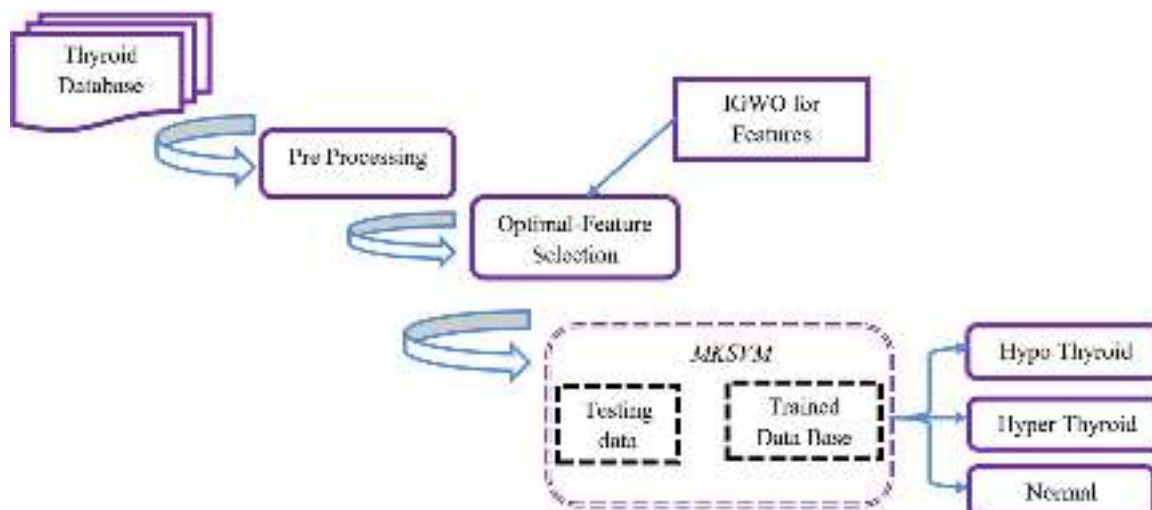
Research is to see what everybody else has seen and to think what nobody else has thought

-Albert Szent-Gyorgyi



- 28) Pari, R., Sandhya, M., Sankar, S. A *Multi-Tier Stacked Ensemble Algorithm to Reduce the Regret of Incremental Learning for Streaming Data* (2018) IEEE Access, 6, art. no. 8452944, pp. 48726-48739.
- 29) Manikandan, R., Jawahar, P.K., Rao, P.H. *Gain enhancement of horn antenna using meta surface lens* (2018) Advanced Electromagnetics, 7 (4), pp. 27-33.

- 30) Pawar, S., Ashraf, M.I., Mujawar, S., Mishra, R., Lahiri, C. *In silico identification of the indispensable quorum sensing proteins of multidrug resistant proteus mirabilis* (2018) *Frontiers in Cellular and Infection Microbiology*, 8 (AUG), art. no. 269, .
- 31) Khatoon, M., Banu, W.A. *An effective way of detecting communities in social network* (2018) *International Journal of Intelligent Engineering and Systems*, 11 (4), pp. 199-211.
- 32) Rajesh, R., John Ethilton, S., Ramachandran, K., Ramesh Kumar, K., Vadla, S.S., Shameem Banu, I.B. *Effect of Sr doping on the magnetocapacitive effect in Bi_{0.6}Sr_{0.4}FeO₃ polycrystalline ceramics* (2018) *Applied Physics A: Materials Science and Processing*, 124 (8), art. no. 532, .
- 33) Thirumurugan, D., Vijayakumar, R., Vadivalagan, C., Karthika, P., Alam Khan, M.K. *Isolation, structure elucidation and antibacterial activity of methyl-4,8-dimethylundecanate from the marine actinobacterium Streptomyces albogriseolus ECR64* (2018) *Microbial Pathogenesis*, 121, pp. 166-172.
- 34) Shankar, K., Lakshmanaprabu, S.K., Gupta, D., Maselena, A., de Albuquerque, V.H.C. *Optimal feature-based multi-kernel SVM approach for thyroid disease classification* (2018) *Journal of Supercomputing*, pp. 1-16. Article in Press.



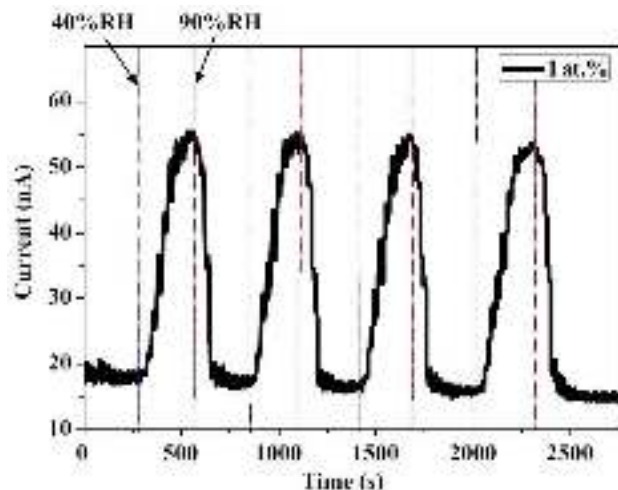
Block diagram for proposed model

Optimal feature-based multi-kernel SVM approach for thyroid disease classification, © (2018) Springer Science+Business Media, LLC, part of Springer Nature, All rights reserved

- 35) Rizwana, R., Raja Mohamed, I. *Applicability of strange nonchaotic Wien-bridge oscillators for secure communication* (2018) *Pramana - Journal of Physics*, 91 (1), art. no. 10, .

- 36) Om Prakash, P.G., Jaya, A. *Analyzing and predicting user navigation pattern from weblogs using modified classification algorithm* (2018) Indonesian Journal of Electrical Engineering and Computer Science, 11 (1), pp. 333-340.
- 37) Gulzar, Z., Leema, A.A. *Course recommendation based on query classification approach* (2018) International Journal of Web-Based Learning and Teaching Technologies, 13 (3), pp. 69-83.
- 38) Gulzar, Z., Leema, A.A. *A framework for recommender system to support personalization in an E-learning system* (2018) International Journal of Web-Based Learning and Teaching Technologies, 13 (3), pp. 51-68.
- 39) Krishnamani, S., Haider, Y. *Sharing behaviour as significant predictor to motivation for transfer of learning* (2018) International Journal of Mechanical Engineering and Technology, 9 (7), pp. 422-432.
- 40) Sah, S.K., Rasool, U., Shanthi, B., Jayprakash, R., Easwaramoorthy, D., Hemalatha, S. *Antibacterial potential of l-tryptophan on extended-spectrum beta-lactamase producing escherichia coli strains: A pathological promising approach* (2018) Asian Journal of Pharmaceutical and Clinical Research, 11 (7), pp. 368-374.
- 41) Ramar, K., Vasanthakumar, V., Priyadharsan, A., Priya, P., Raj, V., Anbarasan, P.M., Vasanthakumari, R., Jafar Ahamed, A. *Green synthetic approach of silver nanoparticles from Bauhinia tomentosa Linn. leaves extract for potent photocatalytic and in vitro biological applications* (2018) Journal of Materials Science: Materials in Electronics, 29 (13), pp. 11509-11520.
- 42) Kalavani, S., Tharini, C. *Analysis and modification of rice golomb coding lossless compression algorithm for wireless sensor networks* (2018) Journal of Theoretical and Applied Information Technology, 96 (12), pp. 3802-3814.
- 43) Arockia Julias, A., Rajaraman, R., Murali, V. *Effect of fiber orientation on the delamination behaviour of glass-carbon hybrid interface* (2018) International Journal of Mechanical and Production Engineering Research and Development, 8 (3), pp. 1159-1166.
- 44) Ismail, A.S., Mamat, M.H., Shameem Banu, I.B., Malek, M.F., Yusoff, M.M., Mohamed, R., Ahmad, W.R.W., Abdullah, M.A.R., Md. Sin, N.D., Suriani, A.B., Ahmad, M.K., Rusop, M. *Modulation of Sn concentration in ZnO nanorod array: intensification on the conductivity*

and humidity sensing properties (2018) Journal of Materials Science: Materials in Electronics, 29 (14), pp. 12076-12088.



The repeatability behavior of TZO-based humidity sensor at 1 at.% Sn concentration

© (2018) Springer Science+Business Media, LLC, part of Springer Nature, All rights reserved.

- 45) Santhosh, M.S., Sasikumar, R., Natrayan, L., Senthil Kumar, M., Elango, V., Vanmathi, M. *Investigation of mechanical and electrical properties of kevlar/E-glass and basalt/E-glass reinforced hybrid composites* (2018) International Journal of Mechanical and Production Engineering Research and Development, 8 (3), art. no. IJMPERDJUN201863, pp. 591-598.

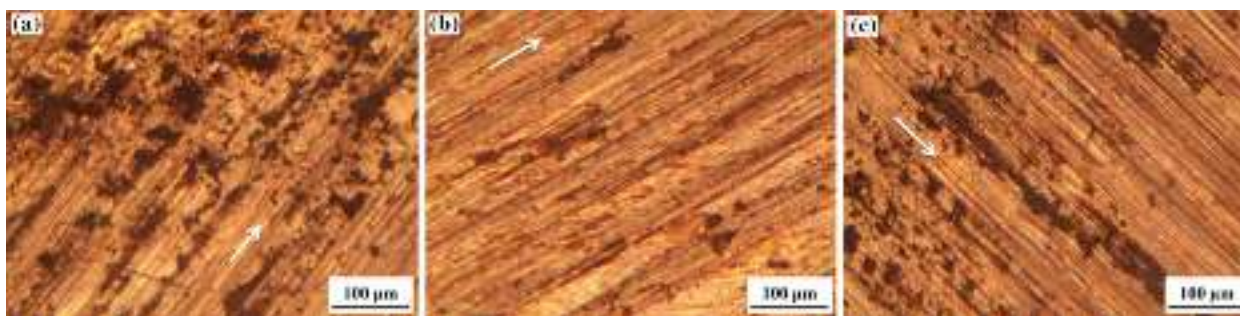


Fabricated Hybrid Laminate: a) Kevlar/E-Glass Laminate; b) Basalt/E-Glass Laminate

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- 46) Vijayajayanthi, M., Kanna, T., Murali, K., Lakshmanan, M. *Harnessing energy-sharing collisions of Manakov solitons to implement universal NOR and or logic gates* (2018) Physical Review E, 97 (6), art. no. 060201, .

- 47) Ibrahim, Y., Siddiqua, M.A., Jeddy, S.A., Ahamed, R.T. *Fragmentary substitution of fine aggregate by tannery! sludge in concrete* (2018) Indian Journal of Environmental Protection, 38 (6), pp. 506-510.
- 48) Dineshkumar, C., Subramanian, M. *Experimental investigation of onboard driver condition monitoring system for passenger vehicles* (2018) International Journal of Mechanical Engineering and Technology, 9 (6), pp. 304-311.
- 49) Arul Murugan, M., Kumar, J.G.K. *Cheap natural fibers as composite material for automobiles - An experimental research* (2018) International Journal of Mechanical Engineering and Technology, 9 (6), pp. 182-185.
- 50) Firdaus, F., Zafeer, M.F., Waseem, M., Ullah, R., Ahmad, M., Afzal, M. *Thymoquinone alleviates arsenic induced hippocampal toxicity and mitochondrial dysfunction by modulating mPTP in Wistar rats* (2018) Biomedicine and Pharmacotherapy, 102, pp. 1152-1160.
- 51) Tamilarasan, T.R., Sanjith, U., Rajendran, R., Rajagopal, G., Sudagar, J. *Effect of Reduced Graphene Oxide Reinforcement on the Wear Characteristics of Electroless Ni-P Coatings* (2018) Journal of Materials Engineering and Performance, 27 (6), pp. 3044-3053.



Optical micrographs of counter faces (disks) slid against Ni-P coating at 1.8 m/s (a) plain Ni-P, (b) Ni-P with 50 mg/L rGO, and (c) Ni-P with 100 mg/L rGO © (2018) ASM International, All rights reserved

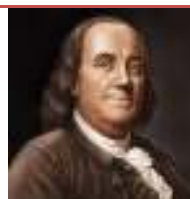
- 52) Jawaher, K.R., Indirajith, R., Krishnan, S., Robert, R., Pasha, S.K.K., Deshmukh, K., Das, S.J. *Hydrothermal synthesis of CeO₂ SnO₂ nanocomposites with highly enhanced gas sensing performance towards n-butanol* (2018) Journal of Science: Advanced Materials and Devices, 3 (2), pp. 139-144.
- 53) Jhonsi, M.A., Ananth, D.A., Nambirajan, G., Sivasudha, T., Yamini, R., Bera, S., Kathiravan, A. *Antimicrobial activity, cytotoxicity and DNA binding studies of carbon dots*

- (2018) *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, 196, pp. 295-302.
- 54) Arvinda Pandian, C.K., Siddhi Jailani, H. *Investigation of viscoelastic attributes and vibrational characteristics of natural fabrics-incorporated hybrid laminate beams* (2018) *Polymer Bulletin*, 75 (5), pp. 1997-2014.
- 55) Raj, J.P., Gangaprasad, D., Vajjiravel, M., Karthikeyan, K., Elangovan, J. *CuO-Nanoparticles Catalyzed Synthesis of 1,4-Disubstituted-1,2,3-Triazoles from Bromoalkenes* (2018) *Journal of Chemical Sciences*, 130 (5), art. no. 44, .
- 56) Kumar, R., Ashfaq, M., Verma, N. *Synthesis of novel PVA starch formulation-supported CuZn nanoparticle carrying carbon nanofibers as a nanofertilizer: controlled release of micronutrients* (2018) *Journal of Materials Science*, 53 (10), pp. 7150-7164.
- 57) Muzaffar, A., Ahamed, M.B., Deshmukh, K., Faisal, M., Pasha, S.K.K. *Enhanced electromagnetic absorption in NiO and BaTiO₃ based polyvinylidene fluoride nanocomposites* (2018) *Materials Letters*, 218, pp. 217-220.
- 58) Sunitha, C., Jaya, A., Ganesh, A. *Semantic role labeling of malayalam web documents in cricket domain* (2018) *Journal of Theoretical and Applied Information Technology*, 96 (8), pp. 2232-2241.
- 59) Sasikala, R., Subash, B., Jayamoorthy, K., Rani, S.K. *Synthesis, Characterization and Recyclable Cerium Loaded CuO Nanocatalyst for the Synthesis of 1, 4- Disubstituted 1, 2, 3-Triazoles and Propargylamines* (2018) *Silicon*, 10 (3), pp. 1095-1101.
- 60) Ponnusamy, K., Davis Presley, S.I., Nagapillai, P., Deivanayagam, E. *A novel method for the synthesis of racemic pregabalin, baclofen and 3-phenibut involving lossen rearrangement* (2018) *Indian Journal of Heterocyclic Chemistry*, 28 (2), pp. 275-278.
- 61) Lakshmanaprabu, S.K., Shankar, K., Khanna, A., Gupta, D., Rodrigues, J.J.P.C., Pinheiro, P.R., De Albuquerque, V.H.C. *Effective Features to Classify Big Data Using Social Internet of Things* (2018) *IEEE Access*, 6, pp. 24196-24204.
- 62) Fazeela Mahaboob Begum, S.M., Chitra, K., Joseph, B., Sundararajan, R., Hemalatha, S. *Gelidiella acerosa inhibits lung cancer proliferation* (2018) *BMC Complementary and Alternative Medicine*, 18 (1), art. no. 104, .

- 63) Sundaram, A., Abdullah Khan, M. *Market Clearing and Settlement Using Participant Based Distributed Slack Optimal Power Flow Model for a Double Sided Electricity Auction Market Part II* (2018) Electric Power Components and Systems, 46 (5), pp. 533-543.
- 64) Sundaram, A., Abdullah Khan, M. *Market Clearing and Settlement Using Participant Based Distributed Slack Optimal Power Flow Model for a Double Sided Electricity Auction Market Part I* (2018) Electric Power Components and Systems, 46 (5), pp. 521-532.
- 65) Subha, N., Mahalakshmi, M., Myilsamy, M., Neppolian, B., Murugesan, V. *Direct Z-scheme heterojunction nanocomposite for the enhanced solar H₂ production* (2018) Applied Catalysis A: General, 553, pp. 43-51.

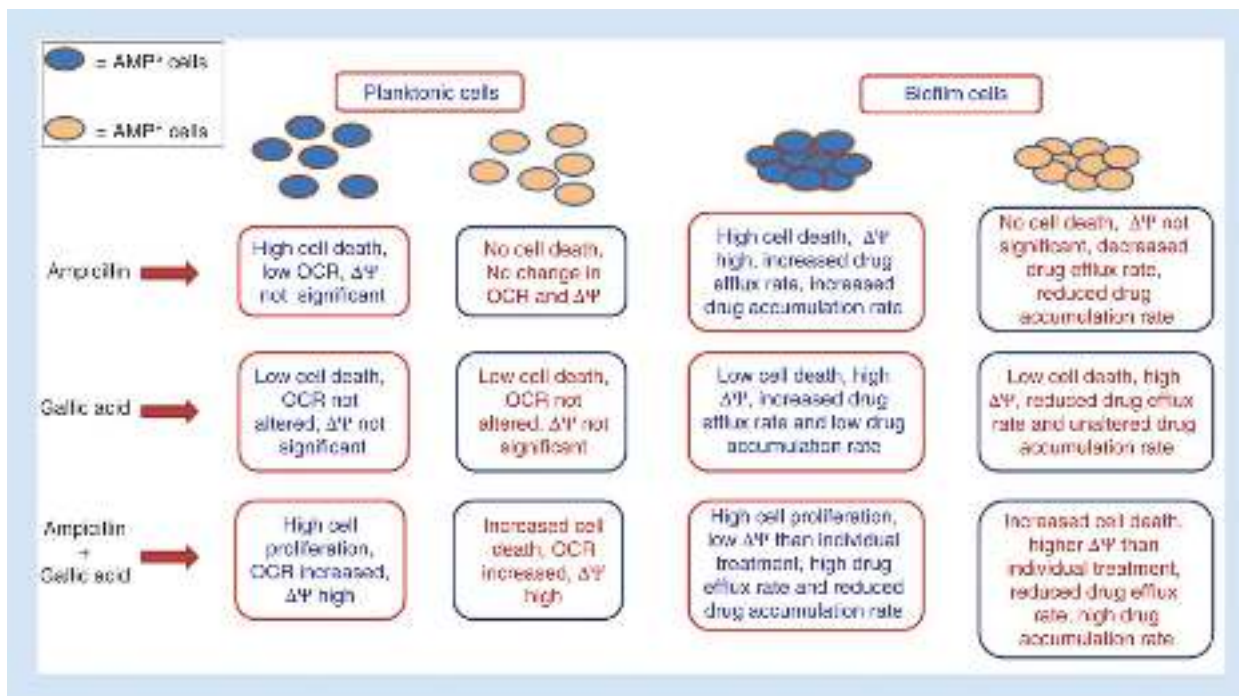
If everyone is thinking alike, then no one is thinking.

-Benjamin Franklin



-
- 66) Sathish Kumar, S., Fazeela, M., Saroj Kumar, S., Kulandaisamy, S., Gowri, S.M., Hemalatha, S., Balasubramanian, K.K. *Synthesis, characterization, in vitro, and in silico studies of 4-(2-hydroxybenzoyl) and 4-(2-hydroxynaphthoyl)-thiabenzene-1-methyl-1-oxides* (2018) Synthetic Communications, 48 (5), pp. 553-560.
- 67) Dar, A.A., Anuradha, N. *An application of Taguchi L₉ method in black scholes model for European call option* (2018) International Journal of Entrepreneurship, 22 (1).
- 68) Komalavalli, P., Banu, I.B.S. *Enhanced room temperature multiferroic properties of nickel ferrite and lithium niobate nanocomposites* (2018) Journal of Materials Science: Materials in Electronics, 29 (5), pp. 3980-3984.
- 69) Chithra, A., Mohamed, I.R., Rizwana, R. *Observation of chaotic and strange nonchaotic attractors in a simple multi-scroll system* (2018) Journal of Computational Electronics, 17 (1), pp. 51-60.
- 70) Selvakumaran, T., Kadiresh, N. *Investigation of Intermittent Oscillations in Composite Propellant* (2018) Propellants, Explosives, Pyrotechnics, 43 (3), pp. 251-257.

- 71) Nathiya, R.S., Perumal, S., Murugesan, V., Raj, V. *Expired Drugs: Environmentally Safe Inhibitors for Aluminium Corrosion in 1M H₂SO₄* (2018) Journal of Bio- and Tribo-Corrosion, 4 (1), art. no. 4, .
- 72) Jawaher, K.R., Indirajith, R., Krishnan, S., Robert, R., Das, S.J. *Quantum chemical calculations of Cr₂O₃ / SnO₂ using density functional theory method* (2018) Pramana Journal of Physics, 90 (3), art. no. 38, .
- 73) Kosuru, R.Y., Aashique, M., Fathima, A., Roy, A., Bera, S. *Revealing the dual role of gallic acid in modulating ampicillin sensitivity of Pseudomonas aeruginosa biofilms* (2018) Future Microbiology, 13 (3), pp. 297-312.



Schematic representation of the effect of gallic acid and ampicillin treatment, individual and combined, on the bacterial planktonic and biofilm cells. Amp: Ampicillin; OCR: Oxygen consumption rates.

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- 74) Lakshmanaprabu, S.K., Sabura Banu, U. *Real time implementation of multivariable centralised FOPID controller for TITO process* (2018) International Journal of Reasoning-based Intelligent Systems, 10 (3-4), pp. 242-251.

- 75) Muruges, S., Jaya, A. *Exploiting ontology to map requirements derived from informal descriptions* (2018) International Journal of Reasoning-based Intelligent Systems, 10 (3-4), pp. 169-173.
- 76) Pari, R., Sandhya, M., Sankar, S. *A Multi-Tier Stacked Ensemble Algorithm for Improving Classification Accuracy* (2018) Computing in Science and Engineering, . Article in Press.
- 77) Banu, S., Mehata, K.M. *SIP-based VoIP anomaly detection engine using DTV and ONR* (2018) International Journal of Networking and Virtual Organisations, 19 (2-4), pp. 234-256.
- 78) Priyadarshini, R., Tamilselvan, L. *Semantic clustering approach for documents in distributed system framework with multi-node setup* (2018) International Journal of Networking and Virtual Organisations, 19 (2-4), pp. 321-340.

Somewhere, something incredible is waiting to be known
-Carl Sagan

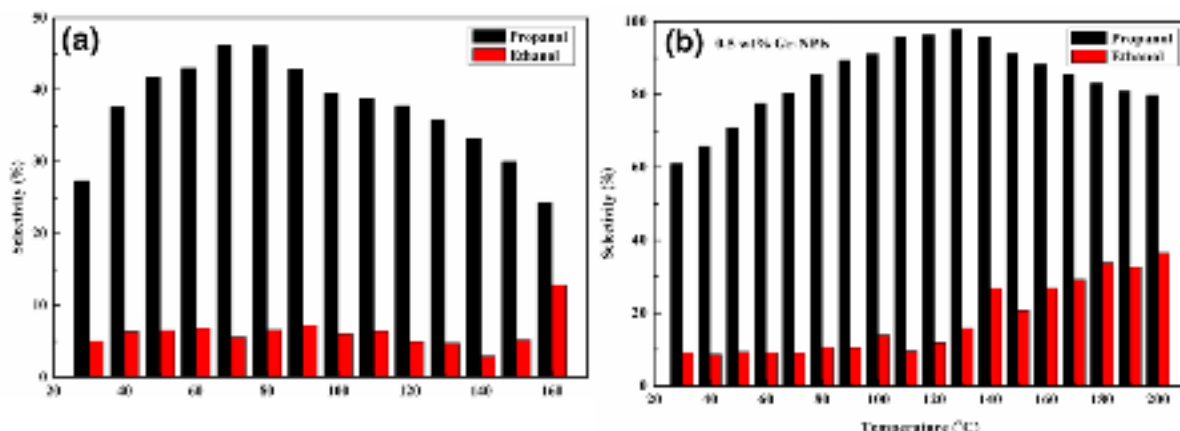


- 79) Subha, N., Mahalakshmi, M., Myilsamy, M., Lakshmana Reddy, N., Shankar, M.V., Neppolian, B., Murugesan, V. *Effective excitons separation on graphene supported ZrO₂ TiO₂ heterojunction for enhanced H₂ production under solar light* (2018) International Journal of Hydrogen Energy, 43 (8), pp. 3905-3919.
- 80) Jakriya, S.P., Syed, A.M., Pillai, S.K., Rahim, D.B. *High-performance poly(vinylidene fluoride-co-hexafluoropropylene) based electrospun polyelectrolyte mat for lithium-ion battery* (2018) Materials Express, 8 (1), pp. 77-84.
- 81) R.G., G.M., Basheer Ahamed, M. *Energy transfer studies for the liquid and solid state materials of Rhodamine B and Styryl 7 Dye* (2018) Optik, 154, pp. 566-575.
- 82) Chidambara Kumar, K.N., Khadeer Pasha, S.K., Deshmukh, K., Chidambaram, K., Shakil Muhammad, G. *Optical Analysis of Iron-Doped Lead Sulfide Thin Films for Opto-Electronic Applications* (2018) International Journal of Nanoscience, 17 (1-2), art. no. 1760004, .
- 83) Deshmukh, K., Sankaran, S., Basheer Ahamed, M., Khadheer Pasha, S.K., Sadasivuni, K.K., Ponnamma, D., Al-Ali AlMaadeed, M., Chidambaram, K. *Studies on the Electrical Properties of Graphene Oxide-Reinforced Poly (4-Styrene Sulfonic Acid) and Polyvinyl*

Office of Dean (Research)

Alcohol Blend Composites (2018) International Journal of Nanoscience, 17 (1-2), art. no. 1760005.

- 84) Jaganathan, S.K., Anthuvan, J.P., Banu, I.B.S. *Erratum to: Synthesis, luminescent properties and energy transfer in Tb³⁺ and Eu³⁺ co-doped Li₃Ba₂Gd₃(MoO₄)₈ phosphors for W-LEDs* (2018) Journal of Materials Science: Materials in Electronics, 29 (3), p. 2372.
- 85) Uma Maheswar, I., Shahin Sultana, A. *An Indian ESWL: A pedagogic tool to improve the lexical competency of students In context of horizontal diversity* (2018) Asian EFL Journal, 20 (4), pp. 23-38.
- 86) Thangamani, G.J., Deshmukh, K., Chidambaram, K., Ahamed, M.B., Sadasivuni, K.K., Ponnamma, D., Faisal, M., Nambiraj, N.A., Pasha, S.K.K. *Influence of CuO nanoparticles and graphene nanoplatelets on the sensing behaviour of poly(vinyl alcohol) nanocomposites for the detection of ethanol and propanol vapors* (2018) Journal of Materials Science: Materials in Electronics, 29 (6), pp. 5186-5205.

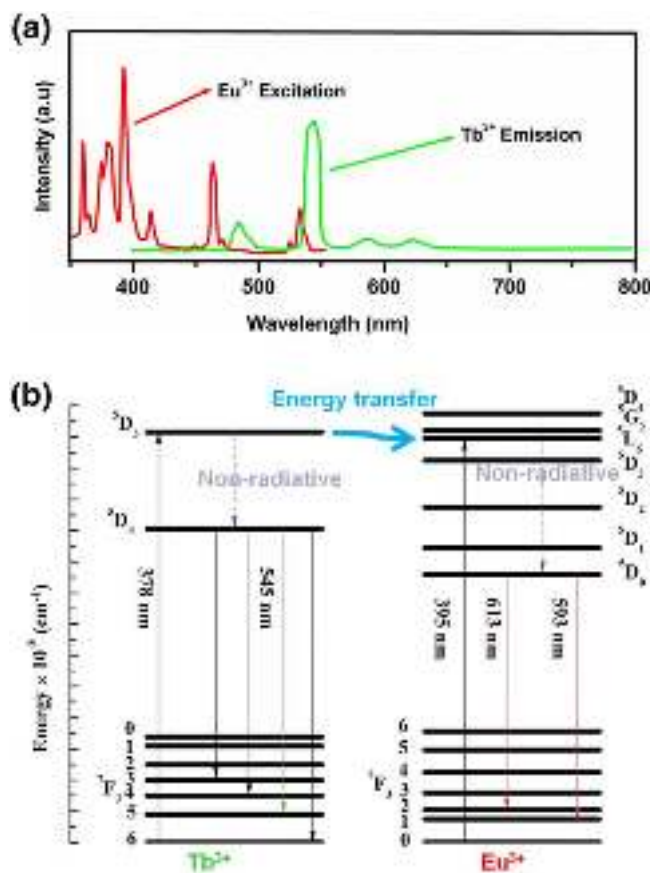


(a) Selectivity of VOC's sensors at 1800 ppm for PVA/CuO nanocomposite films. (b) Selectivity of VOC's sensors at 1800 ppm for PVA/CuO/Gr-NPLs nanocomposite films.

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- 87) Ilyas, A.M., Rajasekaran, S. *An approach to estimate the outstanding loss reserve of the non-life insurer under solvency- II regime* (2018) International Journal of Engineering and Technology(UAE), 7 (4.10 Special Issue 10), pp. 375-379.
- 88) Rasool, U., Sah, S.K., Hemalatha, S. *Growth inhibitory effect of oven dried copper nanoparticles (CuNPs) on drug resistant clinical isolates* (2018) Iranian Journal of Materials Science and Engineering, 15 (3), pp. 12-20.

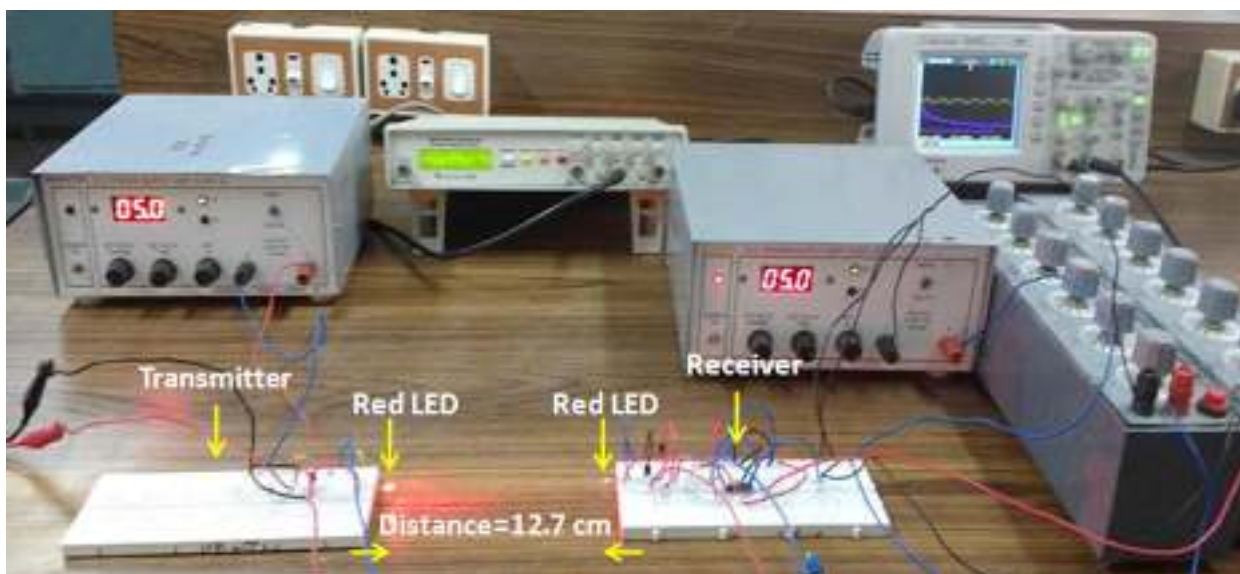
- 89) Gnanasekaran, P., Rangaswamy, T.R. *Transition rate, trend and signal strength based stable routing protocol for mobile ad hoc networks* (2018) International Journal of Wireless and Mobile Computing, 15 (1), pp. 52-57.
- 90) Jaganathan, S.K., Anthuvan, J.P., Banu, I.B.S. *Synthesis, luminescent properties and energy transfer in Tb³⁺ and Eu³⁺ co-doped Li₃Ba₂Gd₃(MoO₄)₈ phosphors for W-LEDs* (2018) Journal of Materials Science: Materials in Electronics, 29 (3), pp. 2363-2371.



Overlap spectral profile of Tb³⁺ emission ($\lambda_{exc} = 378$ nm) and Eu³⁺ excitation ($\lambda_{em} = 618$ nm). b Energy levels of Tb³⁺ and Eu³⁺ in Li₃Ba₂Gd₃(MoO₄)₈ phosphor. © Springer Science+Business Media, LLC 2017, All rights reserved

- 91) Vijayakumar, S., Viswanathan, R. *Performance analysis in blended and online classrooms: An experimental study* (2018) CALL-EJ, 19 (2), pp. 100-124.
- 92) Akther, T., Khan, M.S., Srinivasan, H. *Novel silver nanoparticles synthesized from anthers of couroupita guianensis Abul. Control growth and biofilm formation in human pathogenic bacteria* (2018) Nano Biomedicine and Engineering, 10 (3), pp. 250-257.

- 93) Sharon Priya, S., Mehata, K.M., Aisha Banu, W. *Ganging of resources via fuzzy manhattan distance similarity with priority task scheduling in cloud computing* (2018) Journal of Telecommunications and Information Technology, 2018 (1), pp. 32-41.
- 94) Parnasree Chakraborty, A., Tharini Prasad, B. *An efficient communication protocol for wireless sensor network using differential encoding based compressed sensing technique* (2018) International Journal of Circuits, Systems and Signal Processing, 12, pp. 356.
- 95) Kadirvelu, S., Baba, V. *Visible light communication using LED as receiver with the effect of ambient light* (2018) Optical and Quantum Electronics, 50 (1), art. no. 15.



Experimental test bench of the proposed VLC system using LED as receiver

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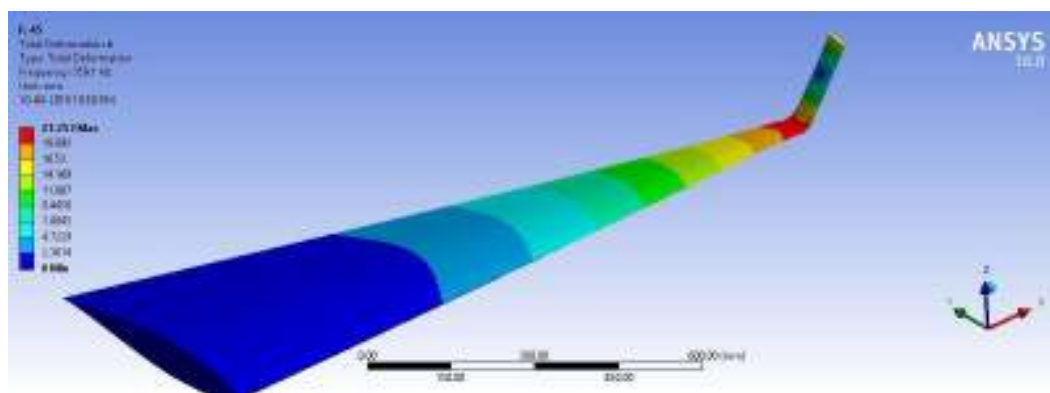
**Persistence in scientific research leads to what I call
instinct for truth.**

-Louis Pasteur



- 96) Subramaniam, K., Tamilselvan, L. *Resource allocation and rate adaptation for multicast of real-time traffic in MANET* (2018) International Journal of Mobile Network Design and Innovation, 8 (1), pp. 17-26.

- 97) Mohammed, W.S., Waheed, K. *Interest-free microfinance in India: A case study of the Al-Khair cooperative credit society* (2018) Journal of King Abdulaziz University, Islamic Economics, 31 (1), pp. 47-68.
- 98) Lone, I.U.N., Sirajuddeen, M.M.S. *Half metallic ferromagnetism in gallium and zinc doped chromium phosphide: First principles calculations* (2018) Materials Chemistry and Physics, 203, pp. 65-72.
- 99) Dineshkumar, C., Subramanian, M., Muthaya, J., Deepan, V. *Health monitoring system for automobile vehicles to enhance safety* (2018) International Journal of Vehicle Structures and Systems, 10 (6), pp. 395-398.
- 100) Arishi, H.A., Mavaluru, D., Mythily, R. *Block chain technology and its applications for virtual education* (2018) Journal of Advanced Research in Dynamical and Control Systems, 10 (13 Special Issue), pp. 1780-1785.
- 101) Ramalingam, K., Amaechi, B.T. *Antimicrobial effect of herbal extract of Acacia arabica with triphala on the biofilm forming cariogenic microorganisms* (2018) Journal of Ayurveda and Integrative Medicine, . Article in Press.
- 102) Vinodh Kumar, A., Kaja Mohideen, S. *Efficient load aware evolutionary routing protocol in hybrid wireless network using MOEAD/D* (2018) International Journal of Mobile Network Design and Innovation, 8 (4), pp. 243-255.
- 103) Venkatesan, S.P., Beemkumar, N., Jayaprabakar, J., Kadiresh, P.N. *Modelling and analysis of aircraft wing with and without winglet* (2018) International Journal of Ambient Energy, . Article in Press.



Total deformation (Frequency 359.1 Hz) (2018)

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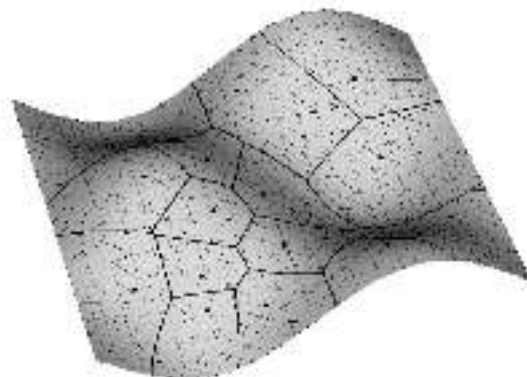
- 104) Priya, A., Kaja Mohideen, S., Thirumaraiselvan, P. *Propagation losses of UWB antenna for on-body to in-body signal propagation* (2018) Progress In Electromagnetics Research M, 73, pp. 101-109.
- 105) Ahmad, F., Salahuddin, M., Alsamman, K., Almulla, A.A., Salama, K.F. *Developmental lead (Pb)-induced deficits in hippocampal protein translation at the synapses are ameliorated by ascorbate supplementation* (2018) Neuropsychiatric Disease and Treatment, 14, pp. 3289-3298.
- 106) Kumar, J.G.K., Venkatesh Babu, R., Arul Murugan, M. *A reinforced coconut char, jute and glass fibers composite material mechanical effects compared by using taguchi method and analysis (Anova) technique* (2018) International Journal of Engineering and Technology(UAE), 7 (4), pp. 2903-2908.
- 107) Nandakumar, C.D., Srinivasan, S., Sathiyamoorthi, R. *Evaluation of reordering time in a manufacturing inventory division* (2018) International Journal of Mathematics in Operational Research, 13 (1), pp. 128-139.
- 108) Chithik Raja, M., Munir Ahmed Rabbani, M. *Analytical inspection of centrality measures in social networking* (2018) Journal of Advanced Research in Dynamical and Control Systems, 10 (5), pp. 703-714.
- 109) Pushpa, B., Najumnissa, D., Nayak, D. *Correlation analysis and modeling of EEG & EMG signal for startle-induced seizures* (2018) OnLine Journal of Biological Sciences, 18 (1), pp. 17-23.
- 110) Sudha, G., Tharini, C. *Modified contourlet transform based effective image compression framework for wireless sensor networks* (2018) Journal of Advanced Research in Dynamical and Control Systems, 10 (Special Issue 1), pp. 216-227.
- 111) Shankar, K., Lakshmanaprabu, S.K. *Optimal key based Homomorphic Encryption for color image security aid of Ant Lion Optimization algorithm* (2018) International Journal of Engineering and Technology(UAE), 7 (1), pp. 22-27.
- 112) Meenakshi, R., Shakeela, K., Kutti Rani, S., Ranga Rao, G. *Oxidation of Aniline to Nitrobenzene Catalysed by 1-Butyl-3-methyl imidazolium phosphotungstate Hybrid Material Using m-chloroperbenzoic Acid as an Oxidant* (2018) Catalysis Letters, 148 (1), pp. 246-257.

- 113) Selvakumaran, T., Kadiresh, N.P. *Investigation on parameters influence for intrinsic instability analysis of solid propellant (AP+HTPB+TDI) using computational image-processing technique* (2018) Thermal Science, 22 (6), pp. 3003-3009.
- 114) Parimon, N., Mamat, M.H., Abdullah, M.A.R., Ismail, A.S., Ahmad, W.R.W., Banu, I.B.S., Rusop, M. *Nanocarnation-like nickel oxide thin film: Structural and optical properties* (2018) International Journal of Engineering and Technology(UAE), 7 (4), pp. 103-106.
- 115) Kannan, P., Presley, S.I.D., Shanmugasundaram, P., Prakash, N., Easwaramoorthy, D. *An efficient and improved process for the synthesis of itopride hydrochloride and trimethobenzamide hydrochloride* (2018) Current Organic Synthesis, 15 (4), pp. 572-575.
- 116) Ahmed, M.J., Balaji, M.A.S., Saravanakumar, S.S., Sanjay, M.R., Senthamarai kanna n, P. *Characterization of Areva javanica fiber A possible replacement for synthetic acrylic fiber in the disc brake pad* (2018) Journal of Industrial Textiles, . Article in Press.
- 117) Mayakrishnan, S., Arun, Y., Maheswari, N.U., Perumal, P.T. *Rhodium(III)-catalysed decarbonylative annulation through C-H activation: Expedient access to aminoisocoumarins by weak coordination* (2018) Chemical Communications, 54 (84), pp. 11889-11892.
- 118) Selvam, G., Prince, S.A.D., Prakash, V.S., Rohit, T. *Quality and productivity improvement through spot welding process optimisation in automobile body shop* (2018) International Journal of Productivity and Quality Management, 23 (1), pp. 110-127.



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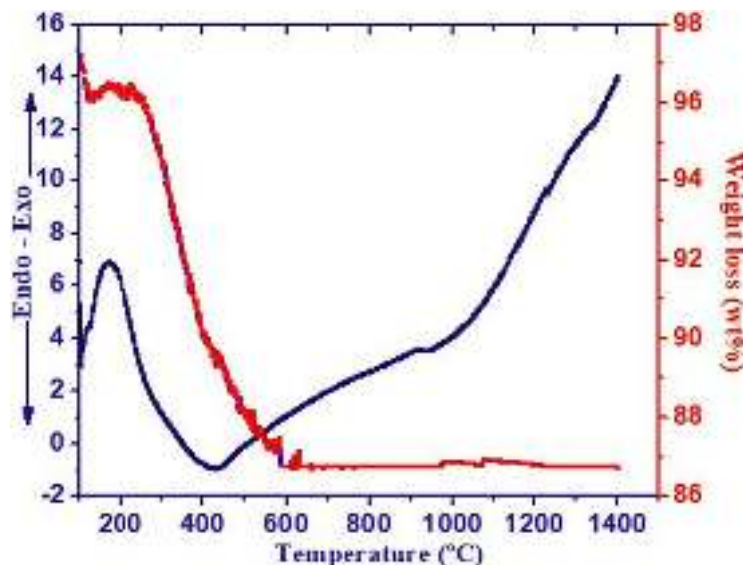
- 119) Ashraf, Md.I., Sinha, S. *The handedness of language: Directional symmetry breaking of sign usage in words* (2018) PLoS ONE, 13 (1), art. no. e0190735.
- 120) Taamneh, Y., Muthumanokar, A., Kabeel, A.E., El-Agouz, S.A., Sathyamurthy, R., Prakash, Chandran, P. *Experimental analysis of inclined solar water heater with baffles* (2018) Chemical Engineering Transactions, 71, pp. 1339-1344.
- 121) Shankar, K., Lakshmanaprabu, S.K., Gupta, D., Khanna, A., de Albuquerque, V.H.C. *Adaptive optimal multi key based encryption for digital image security* (2018) Concurrency Computation, art. no. e5122, . Article in Press.
- 122) Sankaran, S., Deshmukh, K., Ahamed, M.B., Sadasivuni, K.K., Faisal, M., Pasha, S.K.K. *Electrical and Electromagnetic Interference (EMI) shielding properties of hexagonal boron nitride nanoparticles reinforced polyvinylidene fluoride nanocomposite films* (2018) Polymer - Plastics Technology and Engineering, . Article in Press.
- 123) Yuvaraj, N., Arshath Raja, R., Ganesan, V., Suresh Gnana Dhas, C. *Analysis on improving the response time with PID-SARSA-RAL in cloudflows mining platform* (2018) EAI Endorsed Transactions on Energy Web, 18 (20), art. no. e2, .
- 124) Yuvaraj, V., Rajasekaran, S., Nagarajan, D. *Tsunami wave propagation by voronoi diagram* (2018) International Journal of Engineering and Technology (UAE), 7 (3), pp. 1233-1235.



The Sample Voronoi Diagram for the Wave Propagation in the Ocean. © 2018 Science Publishing Corporation

- 125) Elhoseny, M., Shankar, K., Lakshmanaprabu, S.K., Maselena, A., Arunkumar, N. *Hybrid optimization with cryptography encryption for medical image security in Internet of Things* (2018) Neural Computing and Applications, . Article in Press.

- 126) Rajaraman, R., Gowsalya, L.A., Velraj, R. *Interfacial heat transfer coefficient estimation during solidification of rectangular aluminum alloy casting using two different inverse methods* (2018) *Frontiers in Heat and Mass Transfer*, 11, art. no. A023, 8 p.
- 127) Ismail, A.S., Mamat, M.H., Malek, M.F., Yusoff, M.M., Sin, N.D.M., Shariffudin, S.S., Zoolfakar, A.S., Suriani, A.B., Ahmad, M.K., Shameem Banu, I.B., Rusop, M. *Intrinsic ZnO/Al-doped ZnO homojunction: Structural and optical properties* (2018) *Indonesian Journal of Electrical Engineering and Computer Science*, 12 (1), pp. 393-398.
- 128) Shankar, K., Elhoseny, M., Kumar, R.S., Lakshmanaprabu, S.K., Yuan, X. *Secret image sharing scheme with encrypted shadow images using optimal homomorphic encryption technique* (2018) *Journal of Ambient Intelligence and Humanized Computing*, . Article in Press.
- 129) Miftakul Amin, M., Maselena, A., Shankar, K., Perumal, E., Vidhyavathi, R.M., Lakshmanaprabu, S.K. *Active database system approach and rule based in the development of academic information system* (2018) *International Journal of Engineering and Technology(UAE)*, 7 (2.26 Special Issue 26), pp. 95-101.
- 130) Senthil Kumar, M., Vanmathi, M., Senguttuvan, G., Mangalaraja, R.V., Sakthivel, G. *Fly Ash Constituent-Silica and Alumina Role in the Synthesis and Characterization of Cordierite Based Ceramics* (2018) *Silicon*, . Article in Press.



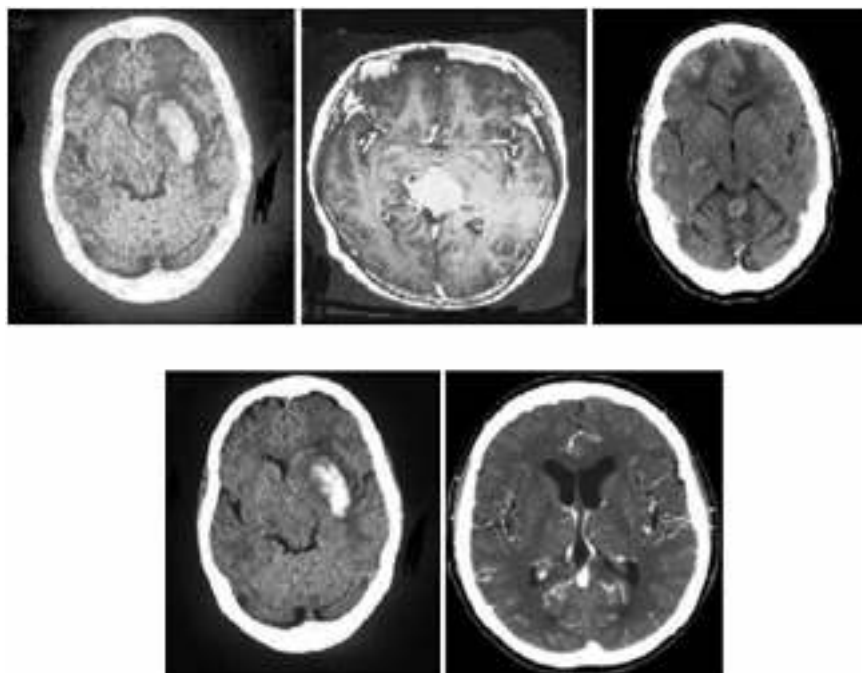
TG/DTA curve for cordierite- TiO_2 (FCTi10) sample dried at 100 °C. © Springer Nature B.V. 2018

- 131) Uthayakumar, J., Metawa, N., Shankar, K., Lakshmanaprabu, S.K. *Intelligent hybrid model for financial crisis prediction using machine learning techniques* (2018) Information Systems and e-Business Management, . Article in Press.
- 132) J, U., Metawa, N., Shankar, K., Lakshmanaprabu, S.K. *Financial crisis prediction model using ant colony optimization* (2018) International Journal of Information Management, . Article in Press.

What is science today is a technique tomorrow
-Edward Taylor



- 133) Shankar, K., Elhoseny, M., Lakshmanaprabu, S.K., Ilayaraja, M., Vidhyavathi, R.M., A. Elsoud, M., Alkhambashi, M. *Optimal feature level fusion based ANFIS classifier for brain MRI image classification* (2018) Concurrency Computation, . Article in Press.



Sample database images. © 2018 John Wiley & Sons, Ltd. All rights reserved

- 134) Laxmi Lydia, E., Krishna Kumar, P., Shankar, K., Lakshmanaprabu, S.K., Vidhyavathi, R.M., Maselena, A. *Charismatic Document Clustering Through Novel K-Means Non-negative Matrix Factorization (KNMF) Algorithm Using Key Phrase Extraction* (2018) International Journal of Parallel Programming, . Article in Press.
- 135) Shankar, K., Elhoseny, M., Chelvi, E.D., Lakshmanaprabu, S.K., Wu, W. *An efficient optimal key based chaos function for medical image security* (2018) IEEE Access, 6, art. no. 8528441, pp. 77145-77154.
- 136) Gupta, D., Khanna, A., Lakshmanaprabu, S.K., Shankar, K., Furtado, V., Rodrigues, J.J.P.C. *Efficient artificial fish swarm based clustering approach on mobility aware energy-efficient for MANET* (2018) Transactions on Emerging Telecommunications Technologies, art. no. e3524, . Article in Press.
- 137) Karthikeyan, K., Sunder, R., Shankar, K., Lakshmanaprabu, S.K., Vijayakumar, V., Elhoseny, M., Manogaran, G. *Energy consumption analysis of Virtual Machine migration in cloud using hybrid swarm optimization (ABCBA)* (2018) Journal of Supercomputing, pp 1-17.
- 138) Lakshmanaprabu, S.K., Shankar, K., Gupta, D., Khanna, A., Rodrigues, J.J.P.C., Pinheiro, P.R., de Albuquerque, V.H.C. *Ranking analysis for online customer reviews of products using opinion mining with clustering* (2018) Complexity, 2018, art. no. 3569351.
- 139) Al-Shabib, N.A., Husain, F.M., Hassan, I., Khan, M.S., Ahmed, F., Qais, F.A., Oves, M., Rahman, M., Khan, R.A., Khan, A., Hussain, A., Alhazza, I.M., Aman, S., Noor, S., Ebaid, H., Al-Tamimi, J., Khan, J.M., Al-Ghadeer, A.R.M., Khan, M.K.A., Ahmad, I. *Biofabrication of Zinc Oxide Nanoparticle from Ochradenus baccatus Leaves: Broad-Spectrum Antibiofilm Activity, Protein Binding Studies, and in Vivo Toxicity and Stress Studies* (2018) Journal of Nanomaterials, 2018, art. no. 8612158.

List of Conference Publications

Number of research publications in Scopus Indexed Journals: 36

- 1) Ramesh Rao, T.R. *Application of residual power series method to time fractional gas dynamics equations* (2018) Journal of Physics: Conference Series, 1139 (1), art. no. 012007.
- 2) Aparna, V., Mohamed Hussain, K., Najummissa Jamal, D., Murshitha Shajahan, M.S. *Implementation of Gain Scheduling Multiloop PI Controller Using Optimization Algorithms for a Dual Interacting Conical Tank Process* (2018) Proceedings of the 2nd International Conference on Trends in Electronics and Informatics, ICOEI 2018, art. no. 8553895, pp. 598-603.
- 3) Noorul Ameen, A., Suresh, S. *Design of Bi-Directional Power Converter for Vehicle-to-Grid Capability of Reactive Power Compensation* (2018) Proceedings of the 2nd International Conference on Trends in Electronics and Informatics, ICOEI 2018, art. no. 8553861, pp. 1336-1340.
- 4) Mohamed Hussain, K., Aparna, V., Murshitha Shajahan, M.S., Najummissa Jamal, D. *Tuning of PID Controller Using GA, SA and QFT for Three Interacting Tank Process* (2018) Proceedings of the 2nd International Conference on Trends in Electronics and Informatics, ICOEI 2018, art. no. 8553819, pp. 549-553.
- 5) Jeyasingh, P., Mohamed Ismail, M. *Real-time Multi Source Speech Enhancement based on Sound Source Separation using Microphone Array* (2018) Proc. IEEE Conference on Emerging Devices and Smart Systems, ICEDSS 2018, art. no. 8544373, pp. 183-187.

A scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it

-Max Planck



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- 6) Waheed, S.A., Sheik Abdul Khader, P. *A Novel Approach for Smart and Cost Effective IoT Based Elderly Fall Detection System Using Pi Camera* (2018) 2017 IEEE International Conference on Computational Intelligence and Computing Research, ICCIC 2017, art. no. 8524486, .

- 7) Sundaram, A., Khan, M.A. *Participant based distributed slack power flow model and calculation of participant based loss factors using the concept of market center* (2018) 2017 9th IEEE-GCC Conference and Exhibition, GCCCE 2017, art. no. 8448193, .
- 8) Hidhaya, S.F., Geetha, A. *Detection of Vulnerabilities Caused by WebView Exploitation in Smartphone* (2018) 2017 9th International Conference on Advanced Computing, ICoAC 2017, art. no. 8441444, pp. 357-364.
- 9) Menaga, D., Revathi, S. *Least lion optimisation algorithm (LLOA) based secret key generation for privacy preserving association rule hiding* (2018) IET Information Security, 12 (4), pp. 332-340.
- 10) Anuradha, G., Jamal, N., Rafiammal, S. *Detection of dementia in EEG signal using dominant frequency analysis* (2018) IEEE International Conference on Power, Control, Signals and Instrumentation Engineering, ICPCSI 2017, pp. 710-714.
- 11) Alias Isakki, R.M., Tharini, C., Arulvani, M. *Performance analysis of pulse shape filter for repetition channel coding* (2018) IEEE International Conference on Power, Control, Signals and Instrumentation Engineering, ICPCSI 2017, pp. 592-597.
- 12) Muthupriya, V., Revathi, S. *Secure Location Aided Routing (SLAR) for mobile ad hoc networks* (2018) IEEE International Conference on Power, Control, Signals and Instrumentation Engineering, ICPCSI 2017, pp. 3018-3023.

Chance favors the prepared mind. The more you practice, the luckier you become

-Richard Branson



- 13) Kavitha, S., Jayashree, R., Rafeequdin, I.M., Danasagaran, K. *Defining the boundaries of microgrids in a large distribution system ensuring supply security* (2018) 2017 7th International Conference on Power Systems, ICPS 2017, pp. 277-282.
- 14) Jayapal, S.N.M., Rafnaz, M., Kadiresh, P.N. *Spray characteristics of plug type swirl injector* (2018) 2018 Advances in Science and Engineering Technology International Conferences, ASET 2018, pp. 1-6.

- 15) Pari, R., Sandhya, M., Sankar, S. *Risk factors based classification for accurate prediction of the Preterm Birth* (2018) Proceedings of the International Conference on Inventive Computing and Informatics, ICICI 2017, pp. 394-399.
- 16) Ramesh Rao, T.R. *Exact Solution of Gas Dynamics Equations Through Reduced Differential Transform and Sumudu Transform Linked with Pades Approximants* (2018) Journal of Physics: Conference Series, 1000 (1), art. no. 012107, .
- 17) Yuvaraj, V., Rajasekaran, S., Nagarajan, D. *Analytical and Numerical Modeling of Tsunami Wave Propagation for double layer state in Bore* (2018) Journal of Physics: Conference Series, 1000 (1), art. no. 012113, .
- 18) Aparna, V., Banu, U.S., Yasmin, S. *PI controller design using quantitative feedback theory for a flow process* (2018) Proceedings - 2017 IEEE International Conference on Technological Innovations in Communication, Control and Automation, TICCA 2017, 2018-January, pp. 31-35.

Research is formalized curiosity. It is poking and prying with a purpose

-Zora Neale Hurston



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- 19) Vengatesan, K., Padmanaban, S., Singh, R.P., Ravishankar, T.N., Bhaskar, M.S., Ramkumar, M. *Performance analysis of gene expression data using biclustering iterative signature algorithm* (2018) 2017 International Conference on Intelligent Computing, Instrumentation and Control Technologies, ICICICT 2017, 2018-January, pp. 7-11.
- 20) Sivashanmugavalli, B., Vijayalakshmi, B. *Performance measures of Vivaldi antenna with parasitic elements* (2018) Proceedings of the 2017 International Conference on Wireless Communications, Signal Processing and Networking, WiSPNET 2017, 2018-January, pp. 25-28.
- 21) Arulvani, M., Ismail, M.M., Issakki, R.M. *Process variation effects on FinFET based content addressable memory* (2018) Proceedings of the 2017 IEEE International Conference on Communication and Signal Processing, ICCSP 2017, 2018-January, pp. 2106-2110.

- 22) Latchoumy, P., Khader, P.S.A. *Hybrid failure handling approach for guaranteed service in cloud computing environment* (2018) Proceedings of the 2017 IEEE International Conference on Communication and Signal Processing, ICCSP 2017, 2018-January, pp. 76-82.
- 23) Kumar, D., Aswini, V., Raj, L.A., Kumar, S.H. *Machine learning approach for quality adaptation of streaming video through 4G wireless network over HTTP* (2018) Proceedings of the 2017 ITU Kaleidoscope Academic Conference: Challenges for a Data-Driven Society, ITU K 2017, 2018-January, pp. 1-8.
- 24) Baskar, S., Prince Arockia Doss, S. *Investigation on Underhood Airflow Management - Effect of Airflow Statistics* (2018) SAE Technical Papers, 2018-July, .
- 25) Wani, A., Revathi, S. *Analyzing threats of IoT networks using SDN based intrusion detection system (SDIoT-IDS)* (2018) Communications in Computer and Information Science, 828, pp. 536-542.
- 26) Bagirathi, S., Sankar, S., Sandhya *Cluster based mechanism for avoidance of duplicate tag data in RFID networks* (2018) Communications in Computer and Information Science, 828, pp. 513-525.
- 27) Chithra, A., Raja Mohamed, I. *Synchronization of two chaotic oscillators through threshold coupling* (2018) Advances in Intelligent Systems and Computing, 732, pp. 241-247.
- 28) Ravishankar, N., Shriram, R. *Grammar rule-based sentiment categorisation model for classification of Tamil tweets* (2018) International Journal of Intelligent Systems Technologies and Applications, 17 (1-2), pp. 89-97.
- 29) Ganesan, S., Ramanujam, P., Prince Arockia Doss, S., Gounder, K., Alagar, V. *An approach to improve the automotive body dimensional accuracy through fixture locator strategy* (2018) FISITA World Automotive Congress 2018.

Nearly every man who develops an idea works it up to the point where it looks impossible, and then he gets discouraged. That's not the place to become discouraged

-Thomas Edison



- 30) Gopal, V.D., Geetha, A. *Cyclic Shuffled Frog Leaping Algorithm Inspired Data Clustering* (2018) Communications in Computer and Information Science, 837, pp. 355-363.
- 31) Prabu, K., Jeyakumar, P.D., Thirumurugan, M. *Experimental Field Performance Analysis of Small Weed Remover in Sugarcane Grassland* (2018) SAE Technical Papers, 2018-July, .
- 32) Selvam, G., Prince Arockia Doss, S., Gounder Kannan, M., Thiruppathi, R., Voppuru, N.S. *BIW Resistance Spot Weld Parameter Standardization through Parameter Optimization across Various Sheet Metal Panel Combinations* (2018) SAE Technical Papers, 2018-July, .
- 33) Rajesh, G., Malliga, P. *Selection of suppliers using Swara and Copras-G* (2018) International Journal of Enterprise Network Management, 9 (2), pp. 169-185.
- 34) Ravikumar, S., Kanagasabapathy, S., Muralidharan, V., Srijith, R.S., Bimalkumar, M. *Fault diagnosis of self-aligning troughing rollers in a belt conveyor system using an artificial neural network and naive bayes algorithm* (2018) Emerging Trends in Engineering, Science and Technology for Society, Energy and Environment - Proceedings of the International Conference in Emerging Trends in Engineering, Science and Technology, ICETEST 2018, pp. 401-408.
- 35) Deshmukh, K., Basheer Ahamed, M., Sankaran, S., Khadheer Pasha, S.K., Kumar Sadasivuni, K., Ponnamma, D., Al-Ali Almaadeed, M. *Studies on the Mechanical, Morphological and Electrical Properties of Highly Dispersible Graphene Oxide Reinforced Polypyrrole and Polyvinylalcohol Blend Composites* (2018) Materials Today: Proceedings, 5 (2), pp. 8744-8752.
- 36) Ravishankar, N., Shriram, R., Vengatesan, K.B., Mahajan, S.B., Sanjeevikumar, P., Umashankar, S. *Grammar rule-based sentiment categorization model for tamil tweets* (2018) Advances in Intelligent Systems and Computing, 668, pp. 687-695.

List of Book Chapters

Number of Book Chapters published: 5

- 1) Najumnisssa Jamal, D., Rajkumar, S., Ameen, N. *Remote elderly health monitoring system using cloud-based WBANs* (2018) Handbook of Research on Cloud and Fog Computing Infrastructures for Data Science, pp. 265-288.

- 2) Mohammed, W.S., Abdur Raqeeb, H., Waheed, K. *Islamic finance in India: Financial regulations challenges and possible solutions* (2018) Global Business Expansion: Concepts, Methodologies, Tools, and Appl., pp. 1003-1026.
- 3) Pandurangan, A.K., Mustafa, M.R. *Therapeutic strategies of natural agents 14 on triple-negative breast cancer* (2018) Anticancer Plants: Natural Products and Biotechnological Implements, 2, pp. 321-341.
- 4) Mahashar Ali, J., Siddhi Jailani, H., Murugan, M. *Surface roughness evaluation of milled surfaces by image processing of speckle and white-light images* (2018) Lecture Notes in Mechanical Engineering, PartF7, pp. 141-151.
- 5) Selvakumar, A.S., Surya Rajan, B., Sai Balaji, M.A., Selvaraj, B. *Strain analysis of AA6063 aluminum alloy by tube hydroforming process* (2018) Lecture Notes in Mechanical Engineering, PartF7, pp. 13-21.

The scientist only imposes two things, namely truth and sincerity, imposes then upon himself and upon other scientists

-Erwin Schrodinger



List of Review articles

Number of Review articles published: 4

- 1) Sankaran, S., Deshmukh, K., Ahamed, M.B., Khadheer Pasha, S.K. *Recent advances in electromagnetic interference shielding properties of metal and carbon filler reinforced flexible polymer composites: A review* (2018) Composites Part A: Applied Science and Manufacturing, 114, pp. 49-71.
- 2) Pandurangan, A., Divya, T., Kumar, K., Dineshbabu, V., Velavan, B., Sudhandiran, G. *Colorectal carcinogenesis: Insights into the cell death and signal transduction pathways: A review* (2018) World Journal of Gastrointestinal Oncology, 10 (9), pp. 244-259.

- 3) Saravanakumar, K., Ali, D.M., Kathiresan, K., Wang, M.-H. *Antimicrobial, anticancer drug carrying properties of biopolymers-based nanocomposites-a mini review* (2018) Current Pharmaceutical Design, 24 (32), pp. 3859-3866.
- 4) Kosuru, R.Y., Roy, A., Das, S.K., Bera, S. *Gallic Acid and Gallates in Human Health and Disease: Do Mitochondria Hold the Key to Success?* (2018) Molecular Nutrition and Food Research, 62 (1), art. no. 1700699.

Presentations in Conference/Workshop/Seminars and Symposium

Number of Research Paper presentations in Conference/Workshop: 28

- 1) **Shaikh Abdul Waheed**, Research scholar, Department of CSE, BSACIST presented a paper entitled *A Novel Approach for Smart and Cost Effective IoT based Elderly Fall Detection System Using Pi-Camera* in IEEE International conference held at Coimbatore on 15th December-2018
- 2) **D. Menaga**, Research scholar, Department of CSE, BSACIST presented a paper entitled *Privacy preserving using Bioinspired Algorithm for Data Sanitization* in EECM MC-18 International conference held at Priyadarshini College, Vellore on 28th January-2018.
- 3) **B. Surya Rajan**, Research scholar, Department of CSE, BSACIST presented a paper entitled *Strain analysis of AA6063 Aluminium Alloy By Tube Hydroforming Process* in International Conference on Engineering Materials, Metallurgy and Manufacturing (ICEMMM-2018).
- 4) **D. Menaga**, Research scholar, Department of CSE, BSACIST presented a paper entitled *Privacy Preserving using Bio Inspired Algorithms for Data Sanitization* in IEEE based International conference (EECCMC 2018) at Priyadarshini College of Engineering held during 28th and 29th, January-2018.

Basic research is what I am doing when I don't know what I am doing

-Wernher Von Braun



- 5) **H. Shameem Banu**, Research scholar, Department of Physics, BSACIST presented a paper in *National Conference on Recent trends in mathematics and its applications-2018* held on 23rd Feb 2018.
- 6) **L. Shakkeera**, Research scholar, Department of IT, BSACIST presented a paper entitled *Efficient Collaborative Key Management Protocol for Secure Mobile Cloud Data Storage* in International Conference on Intelligent Computing and Applications (ICICA 2018) accepted for publication in Springer Advances in Intelligent Systems and Computing (AISC).
- 7) **K Sathick Basha** Research scholar, Department of Mechanical Engineering, BSACIST presented a paper entitled *Tribo Performance of Brake friction composite with stainless steel fiber* in International Conference on Engineering Materials, Metallurgy and Manufacturing 2018 (ICEMMM 2018) held at SSN College of Engineering, Chennai held during 15th and 16th Febraury-2018.
- 8) **J. Mahashar Ali**, Research scholar, Department of Mechanical Engineering, BSACIST presented a paper entitled *Surface roughness evaluation of milled surfaces by image processing of speckle and white light images* in International Conference on Engineering Materials, Metallurgy and Manufacturing 2018 (ICEMMM 2018) held at SSN College of Engineering, Chennai held during 15th and 16th Febraury-2018.
- 9) **R.K.Sangeetha**, Research scholar, Department of English, BSACIST presented a paper entitled *Ecofeminism and Marginalised Women: A Study of Baby Kamble's The Prison We Broke* held at Thiruvalluvar University, Vellore during 15th and 16th Febraury-2018.
- 10) **V.Gunasegaran**, Research scholar, Department of Mechanical Engineering, BSACIST presented a paper *Experimental Investigation for Micromechanical Properties of Cu-Ni- P-W Composite Coating on Al-6063* in International Conference on Engineering Materials, Metallurgy and Manufacturing 2018 (ICEMMM 2018) held at SSN College of Engineering, Chennai held during 15th and 16th Febraury-2018.
- 11) **Sri Nithya Mahottamananda**, Research scholar, Department of Aeronautical, BSACIST presented a paper in *International Conference on 2018 International Multi-Conferences On Advances In Science And Engineering Technology* (ASET'2018) Sub-Conference: Aviation and Space Technology topic: Spray characteristics of plug type swirl injector

- 12) **Uma maheswari** , Research scholar, Department of English, BSACIST presented a paper entitled *Corpora based English Curriculum to Develop the Lexical Proficiency of Students at Tertiary Level* in the UGC sponsored National Seminar on The Development of English communicative proficiency in Undergraduate Students at Veer Savarkar Govt. College, Obedullaganj, Raisen, Madhya Pradesh held during 26th and 27th Febraury-2018.
- 13) **Ikram Un Nabi Lone**, Research scholar, Department of Physics, BSACIST presented a paper in *International Conference on Recent Advances in Materials (ICRAM-2018)* organized by PG and Research Department of Physics, National College (Autonomous), Tiruchirappalli (*Best Paper award*)
- 14) **B.Pushpa, D.Najumnissa and Ashik.S**, Department of EIE, BSACIST presented a paper entitled *Analysis of startle type epileptic seizure using Emprical mode Decomposition and Machine Learning technique* in International Conference on computational Science & its Applications- ICCSA-2018 organised by Sri S. Ramasamy naidu Memorial College Sattur & Institute of Research and Academic Journal (IRAJ) held on 16th March, 2018.
- 15) **Uma Maheswari. V**, Research scholar, Department of English, BSACIST presented a paper entitled *Review of ELT pedagogy in educational systems in India - A cross country comparison*, The First International ASEAN ELT Conference held in Universiti Putra Malaysia, Malacca, Malaysia" during 15th to 17th March-2018
- 16) **Uma Maheswari V**, Research Scholar, Department of English, BSACIST presented a paper entitled *Measures to overcome the digital divide caused in ELT classrooms* in One day seminar Quality Assurance in Higher Education Institutions: Issues, Challenges and Remedies held at Chandra Sekhar Azad Govt. P.G. college, Sehore, Madhya Pradesh on March 10th, 2018.
- 17) **Ikram Un Nabi Lone**, Research scholar, Department of Physics, BSACIST presented a paper entitled *First-Principle investigation of electronic and half metallic properties in Pt_{0.125}Cr_{0.875}P* in International Conference on Recent Advances in Materials (ICRAM-2018) organised by PG and Research Department of Physics, National College (Autonomous), Tiruchirappalli.
- 18) **J. Mahashar Ali**, Research scholar, Department of Mechanical Engineering, BSACIST presented a paper entitled *Vision based system for Surface Roughness Characterisation of*
Office of Dean (Research)

Milled surfaces using Speckle Line images in International Conference of ICAME 2018 held at SRM University during 23th to 25th March-2018.

- 19) **N. Suguna**, Research scholar, Department of English, BSACIST presented a paper entitled *Changing Methodology to Suite the Changing Needs of Learners* in International Conference on evolving strategies to overcome continuing challenges in second language education at the tertiary level conducted by Department of English, Anna university & SSN college of engineering, Chennai between 1st and 3rd March-2018.

A scientist is happy not in resting on his attainments but in the steady acquisition of fresh knowledge

-Max Planck



- 20) **G Veni Devi**, Research Scholar, Department of Computer Science and Engineering, BSACIST presented a paper entitled *Cyclic Shuffled Frog Leaping Algorithm Inspired Data Clustering*, in Springer International Conference on Soft Computing Systems ICSCS-2018 at Kollam, India between 19th and 20th, April-2018.
- 21) **Abdur Rahman**, Research Scholar, Department of Mechanical Engineering, BSACIST presented a paper entitled *Synthesis And Characterization Of Al 7150 Alloy*, in Advances In Mechanical Engineering-ICAME 2018, SRM Institute of Science and Technology, Chennai (SRMIST Kattankulathur) between 22nd and 24th March 2018.
- 22) **C.Revathy**, Research Scholar, Department of Management Studies BSACIST presented a paper entitled *A Study on Information Search & Information Satisfaction on Video Streaming Site* in 3rd International Conference on New Frontiers of Engineering, Science (ICNFESMH-2018), Mahratta Chamber of Commerce Industries & Agriculture, Senapati Bapat Road, Pune, Maharashtra on 17th June 2018.
- 23) **Mr.N. Gopinathan**, Research Scholar, Department of Physics, BSACIST presented a paper entitled *Absorption and Emission Properties of MASrCl3 and MASr(1-x)Sn(x)Cl3 Perovskite for Light Harvesting Material in Optoelectronic Devices*, in 13th National Conference on Energy, Ecology and Environment NCEEE-18, organized by Bannari Amman Institute of Technology, Sathyamangalam, Erode-638401 on August 2-3, 2018.

- 24) **S.Grace Vinitha**, Research Scholar, Department of English, BSACIST presented a paper entitled *Cultural Transition and Women's Transformation in the Novels of Padma Viswanathan* in one day National Seminar on Portrayal of Women in Modern English Literature organized by the Department of English at Singai Sithar Ayya College of Arts and Science, Karaikudi.
- 25) **S.Grace Vinitha**, Research Scholar, Department of English, BSACIST presented a paper entitled *Women and Identity Crisis in Padma Viswanathan's Novel* in one day International Conference on Culture and Literature: Convergence and Divergence (ICCLCD'18) organized by Department of English at Thiruvalluvar University, Vellore on 27th & 28th September-2018.
- 26) **J. Sumaiya Javeed**, Full time Scholar, Department of English, BSACIST presented a paper entitled *Identity crisis and stoic endurance in Anita Nair's Lessons in Forgetting* in one day International Conference on Culture and Literature: Convergence and Divergence (ICCLCD'18) organized by Department of English at Thiruvalluvar University, Vellore on 27th & 28th September-2018.
- 27) **R.K. Sangeetha**, Research Scholar, Department of English, BSACIST presented a paper entitled *Ecofeministic study of women and Nature in Anita Desai's Fire on the Mountain* in International Conference on "Culture and Literature: Convergence and Divergence (ICCLCD'18)" organized by Department of English at Thiruvalluvar University, Vellore on 27th & 28th September-2018.
- 28) **A. Catherine Anna Pushpam**, Research Scholar, Department of English, BSACIST presented a paper entitled *Feminist History: A Comparative Study on Two Novels about The Mughal Empire* in International Conference on "Culture and Literature: Convergence and Divergence (ICCLCD'18)" organized by Department of English at Thiruvalluvar University, Vellore on 27th & 28th September-2018.

Be less curious about people and more curious about ideas

-Marie Curie



Participations in Conference/Workshop/Seminars and Symposium

Participations in Conference/Workshop/Seminars/Symposium: 27

- 1) **Mehjabin Khatoon**, Research scholar, Department of CSE, BSACIST attended ICITC-2017 International conference on *IOT abd Challenges* at Veltech Multitech Engineering College, Chennai on 14-15 December 2017.
- 2) One day workshop on *Art of Doing Research* organized by Department of Industrial Engineering, Anna University, Chennai-25 on 9th December 2017.
Syed Javeed Pasha, Research scholar, Department of CA, BSACIST
R. Pari, Research scholar, Department of CSE, BSACIST
Azka, Research scholar, Department of CA, BSACIST
- 3) Two day national workshop on the topic *IOT and Challenges held* at SRM Institute of Science and Technology on 1st and 2nd February-2018.
Shaikh Abdul Waheed Research scholar, Department of CSE, BSACIST
R. Pari, Research scholar, Department of CSE, BSACIST
Syed Javeed Pasha, Research scholar, Department of CA, BSACIST
Azka, Research scholar, Department of CA, BSACIST
- 4) National Conference on *Microsoft Intelligent Cloud* organised by Microsoft on 16th February 2018 held at Hyatt Regency Chamber, Chennai.
Zameer Gulzar, Research scholar, Department of CA, BSACIST
Shabaz Afzal, Research scholar, Department of IT, BSACIST

Even now we have more questions than when I started
-Yoshinori Ohsumi



- 5) **A. Catherine Anna Pushpam**, Research Scholar , Department of English, BSACIST Attended National workshop on *Cultural Studies: Paradigms and Practices* at The New College, Chennai on 13 Feb 2018.

- 6) **Surya Rajan B**, Research Scholar, Department of Mechanical Engineering BSACIST Attended National Level Workshop on *Advanced Composite Materials A Research Perspective* on 2 & 3 Feb-2018, Organized by the Dept. of Mechanical Engineering, BSACIST.
- 7) **S. Grace Vinitha**, Research Scholar, Department of English, BSACIST attended National workshop on *Cultural Studies: Paradigms and Practices* at The New College, Chennai on 13th Feb 2018 .
- 8) **H. Shameem Banu**, Research Scholar, Department of Physics BSACIST attended National Conference on *Recent trends in mathematics and its applications-2018*.
- 9) **Mohd Umar**, Research Scholar, Department of Civil Engineering, BSACIST, attended two for *International symposium CORSYM2018* at Indian Institute of Technology Madras (IIT) IIT MADRAS as a student organizing committee member (SOC) held on 23th and 24th, March-2018.

Everything which is new has to come out of fundamental research otherwise its not new

-Manfred Eigen



- 10) Two days' Workshop on *Special Focus on IoT* organised by the Information technology Department, SSN Engineering College, Chennai on 23rd and 24th March, 2018.
Shaikh Abdul Waheed, Research Scholar, Department of CSE, BSACIST
Mohsin Fayaz, Research Scholar, Department of CA, BSACIST
- 11) **Sri Nithya Mahottamananda**, Research Scholar, Department of Aeronautical Engineering, attended two day International workshop on *Detonation wave engines* organized by CDTS, Hindustan Institute of Technology & Science, Chennai, India on 12th and 13th March, 2018.
- 12) **Ikram Un Nabi**, Research Scholar, Department of Physics, BSACIST attended *National Symposium on Advanced Functional Materials* organized by Department of Materials Science, Central University of Tamil Nadu, Thiruvavur on 18th of April 2018.
[Office of Dean \(Research\)](#)

- 13) **J. Sumaiya Javeed**, Research Scholar, Department of English, BSACIST attended Two day National conference on *Nature, Culture, Language & Literature: Environmental Narratives and Critical Practices* at SRM Institute of Science and Technology on 16th & 17th April 2018.
- 14) **R.K. Sangeetha**, Research Scholar, Department of English, BSACIST attended Two day National conference on *Nature, Culture, Language & Literature: Environmental Narratives and Critical Practices* at SRM Institute of Science and Technology on 16th & 17th April 2018.
- 15) **T.R. Ramesh Rao**, Associate Professor, Department of Mathematics & Actuarial Science, BSACIST, Participated in the ICMR sponsored a two day seminar on *Research Acumens in Machine Learning Algorithms for Bioinformatics Applications* conducted by department of ECE, Rajalakshmi Institute of Technology, Chennai during 22nd and 23rd June 2018.
- 16) **T.R. Ramesh Rao**, Associate Professor, Department of Mathematics & Actuarial Science, BSACIST, Participated in the DST-SERB sponsored two days' workshop on *The New Age of Quantum Cryptography* conducted by Sri Ramakrishna Engineering college, Coimbatore on 27th and 28th June 2018.
- 17) **Ikram Un Nabi Lone**, Research Scholar, Department of Physics, BSACIST attended *One month Summer internship on computational Material Science*, at Department of Physics, National Institute of Technology (NIT) Srinagar, Jammu and Kashmir, India.

Science walks forward on two feet, namely theory and experiment. But continuous progress is only made by the use of both

-Robert A. Millikan



- 18) **P.V. Nagendra Sarma**, Professor, Crescent School of Law, BSACIST participated in a *Seven-Day Refresher Course in Teaching Law* at National Law School of India University, Bangalore Karnataka between 9th to 15th, June- 2018.

- 19) **Dr. A.K.Kaliluthin**, Department of Civil Engineering, BSACIST attended *One day Seminar on Affordable housing for all*, organized by Department of Civil Engineering, Indian Institute of Technology (IIT) Hyderabad on 27th October 2018.
- 20) **Mr.B. Kannadasan**, Department of Civil Engineering, BSACIST attended *Two days National level Faculty Workshop on Total Station, GPS and Gas Chromatography*, organized by St. Joseph's Institute of Technology Chennai on 9th and 10th, October 2018
- 21) **Mrs. Nabeena Ameen**, Department of Information Technology (IT) attended *One day Workshop on Predictive modeling using R* organized by Department of Computer Applications, BSACIST on 29th October, 2018.
- 22) **Mr. K Sathick Basha**, Department of Mechanical Engineering attended *One day National level seminar on Development of Materials for Aerospace Applications* on 25th October, 2018.
- 23) **Dr. R. Amiruddin**, Department of Physics delivered invited talk entitled Characterization of thin films on UGC sponsored *National level Seminar on Advanced Materials and Characterization* organized by Department of Physics PB Siddhartha College of Arts & Science, Vijayawada held on 26th October, 2018 (Invited talk)
- 24) **Dr. A.K. Kaliluthin**, Assistant Professor, Department of Civil Engineering, BSACIST Participated in *Professional Education Course on Corrosion Mitigation for Reinforced Structures* at Indian Institute of Technology Madras Chennai, Tamil Nadu 600036 on 4th October 2018.
- 25) **B. Kannadasan**, Research Scholar, Department of Civil Engineering, BSACIST attended *Statistical and Econometric Methods in Transportation-Global Initiative for academic networks (GIAN)* at Indian Institute of Technology Kharagpur during 26th -30th November 2018.
- 26) **Rupel Nargunam**, Research Scholar, Department of Mathematics and Actuarial Science got selected among 16 participants across the country to present a poster in a *PhD Colloquium* at Indira Gandhi Institute of Development Research, Mumbai during 13th-16th November, 2018
- 27) **A. Muthu Manokar**, Research Scholar, Department of Mechanical Engineering, BSACIST, attended one day workshop titled on *Wiley Author Workshop* organised by University Library, Anna University, Chennai and Wiley on 19th November, 2018.

Research Projects– (Completed in the year 2018)

Sl. No	Project details	Principal Investigator	Cost in Lakhs
1.	Antioxidant gene polymorphisms and mitochondrial signaling in cancer risk (DBT, 2015-18)	Dr. Soumen Bera , Assistant Professor (Sr. Gr.)/ Life Sciences	24.75
2.	Immunosuppressive cells within inflammatory Tumor Microenvironment (DST – SERB, 2015-18)	Dr.Neesar Ahmed , Assistant Professor (Senior Grade)/ Life Sciences	22.66
3.	Identifying the molecular basis of peroxidase activity of Peroxiredoxin 6 – An approach for designing Antioxidant Peptides and Inhibitors (DST – SERB, 2015-18)	Dr.Md. Khurshid Alam Khan , Assistant Professor(S.G)/Life Sciences	14.30
4.	Synthesis and characterization of multi ferroic nano composites for functional applications (DST-WOS-A, 2015-18)	P. Komalavalli, Mentor Dr. I. B. Shameem Banu , Professor/Physics	14.19
5.	Investigation of multi-ferroic properties of rare earth and transition metal doped bismuth ferrite for functional applications (DST-SERB, 2015-18)	Dr. I. B. Shameem Banu , Professor/Physics	23.55
6.	Endophytic diversity of herbal plant Hibiscus (DBT, 2018)	Dr. Wasima Mohamed , Assistant Professor/Life Sciences	8.00
7.	Tamil Plagiarism Checker (TVA, 2016-18)	Dr.Shriram , CSE	02.15
8.	Tamil Tholkappiam (CICT, 2016-18)	Dr.Shriram , CSE	02.50
Total			112.10

Research Projects– (Ongoing in the year 2018)

Sl. No	Project details	Principal Investigator	Cost in Lakhs
1.	Development of Graphene and Metal Nanoparticles Reinforced Flexible Polymer nanocomposites for Effective Electromagnetic Interference (EMI) Shielding Applications (DST-SERB, 2017-20)	Dr. M. Basheer Ahamed, Professor/Physics	28.01
2.	Construction of optical logic gates using soliton collisions and study of electrical solitons in nonlinear transmission lines (DST-SERB, 2016-19)	Dr. M. Vijayajayanthi, Young Scientist/ Physics	32.44
3.	Development of Hybrid Rocket Motor (Aeronautical Research & Development Board, DRDO, 2017-20)	Dr.P.N.Kadiresh, Professor/Aerospace Engineering	9.83
4.	Antimicrobial Efficacy and Mechanisms of Whole Plant Extract of <i>Acacia Arabica</i> with Triphala on Biofilm Forming Cariogenic Microorganisms (AYUSH-EMR 2016-19)	Dr. Karthikeyan Ramalingam, Associate Professor /Life Sciences	33.00
5.	Synthesis of antimicrobial nanoemulsions for the treatment of multi-drug resistant ESKAPE pathogens (DST – SERB, 2016-19)	Dr. Karthikeyan Ramalingam, Associate Professor/Life Sciences	23.28
6.	Bio Incubator Grant (Bio Nest) (BIRAC, DBT, Govt of India, 2018-21)	Dr.S.Hemalatha, Professor & Dean/Life Sciences	180

7.	Endophytic diversity of herbal plant hibiscus (DBT, 2018)	Dr. Wasima Mohamed, Assistant Professor/Life Sciences	8.00
8.	Evaluation of Sacrificial anode/ cathodic prevention/ Protection (SACP) systems for various types of concrete systems (Industry Project 2018-21)	Dr. M.S. Haji Shiek Mohammed, Professor/Civil Engineering & Dean – Academic Affairs	25.26
9.	Corrosion protection and service life extension of reinforced concrete roofing systems in existing buildings (DST,SERB,TARE, 2018- 21)	Ms.Roopa, Civil Engineering	5.00
10.	Structural Behaviour of Corroding Prestressed Concrete Systems and Extension of Service Life using Cathodic Protection (Extra Mural research Funding, 2018-19)	Dr. M.S. Haji Shiek Mohammed, Professor/Civil Engineering & Dean – Academic Affairs	4.00
11.	Light induced process of Hierarchical electron cascade system, Materials and Devices for Solar energy conversion (DST,SERB,TARE, 2018-21)	Dr. Asha Jhonsi Mariadoss, Assistant Professor (Sr. Gr.)/Chemistry	16.8
12.	Fault diagnosis on single stage helical planetary gearbox using machine learning algorithms (TNSCST, 2019-20)	Aquib Yousuf Aravind.V.K Aravinda Krishnan.A Farhanuddin.S.M. Syed Shaul Hameed, Department of Mechanical Engineering	0.075
13.	Phycoremediation of CO2 Level in sub urban area via CO2 Sequestration by native microalgae : an eco friendly approach (TNSCST, 2019-20)	Dr D Mubarak Ali M Santhosh Kumar A Aravindh, School of Life Science	0.075

14.	Patient monitoring System for Scheizophrenia Research Foundation (SCARF) organization (Jasmin Infotech, 2019-20)	Dr.C.Tharini , Professor & Head/ECE	0.70
Total			411.97

Every great and deep difficulty bears in itself its own solution. It forces us to change our thinking in order to find it.
-Niel Bohr



List of PhDs awarded during 8th annual convocation- 2018

Number of PhDs awarded during 8th annual Convocation 2018, BSACIST: 26

1. Department of Computer Science and Engineering

Title: Adaptive trust model with attestation for software services in cloud environment

(Viva voce completed on November 2017)



Ms. S. Udhaya Kumar
(RRN:1086210)

2. Department of English

Title: Teaching Academic Writing to the Students of Engineering using Multimedia Tools an Experimental Study

(Viva voce completed on December 2017)



Mr. S. Vijayakumar
(RRN:1192204)

3. Department of Mathematics & Actuarial Science
Title: Analysis of Risk factors of Heart Disease Using Decagonal Fuzzy Models
(Viva voce completed on January 2018)

Ms. A. Divya
(RRN: 1289214)
4. Department of Computer Applications
Title: Enhanced Routing and Queue Management Techniques for Performance Improvement in Mobile Ad Hoc Networks
(Viva voce completed on January 2018)

Mr. M. Syed Masood
(RRN: 0994201)
5. Department of Computer Applications
Title: Integrated Proactive and Reactive Failure Handling Strategies to improve the Services in Computational Grid
(Viva voce completed on January 2018)

Ms. P. Latchoumy
(RRN: 0994202)
6. Department of Computer Applications
Title: Development of Confidentiality, Integrity, Authentication Model for Assuring Data Security in Cloud Computing
(Viva voce completed on April 2018)

Ms. P. Veeralakshmi
(RRN: 1086214)
7. School of Islamic Studies
Title: A Study of Plural Society in the Light of Quran & Hadeeth and its impact on Muslims of Tamil Nadu
(Viva voce completed on April 2018)

Mr. S.A. Usman Ali
(RRN: 1188201)

8. Department of Physics

Title: Synthesis and Characterization of Rare Earth Doped Molybdate and Tungstate Phosphors for Lighting Applications

(Viva voce completed on March 2018)



Mr. Mahalingam V
(RRN: 140903101003)

9. Department of Physics

Title: Synthesis and Characterization of Bismuth Ferrite Based Multiferroic Materials

(Viva voce completed on May 2018)



Ms. A. Sathiya Priya
(RRN: 1390118)

10. Department of ECE

Title: Analysis on the Performance of Energy Efficient Routing and Fault-Tolerant Data Aggregation Algorithms for Wireless Sensor Networks

(Viva voce completed on May 2018)



Ms. V.K. Subhashr
(RRN: 1384118)

11. Department of Chemistry

Title: Synthesis, Characterisation, and Biological evaluation of Schiff Bases derived from Hydroxy Substituted Benzaldehydes

(Viva voce completed on July 2018)



Mr. R. Jaya Prakash
(RRN: 0991205)

12. Department of Information Technology

Title: Client Aware Cloudlet Framework in a Service Cloud Environment

(Viva voce completed on August 2018)



Ms. Uma Nandhini D
(RRN: 1187205)

13. School of Life Sciences

Title: Biophysical analysis and investigation of the immunomodulatory and mitogenic facets of jacalin, a dietary lectin

(Viva voce completed on August 2018)



Ms. Lavanya V

(RRN: 141153107003)

14. School of Computer Science and Engineering

Title: Performance Enhancement Techniques of Voice Over IP Telephony

(Viva voce completed on August 2018)



Ms. Saira Banu

(RRN: 1186223)

15. Department of Information Technology

Title: A Multi Criteria Recommendation Engine for Cloud Renderfarm Services

(Viva voce completed on August 2018)



Mrs. Ruby Annette J.

(RRN: 130873707001)

16. School of Life Sciences

Title: Screening of the Antioxidant, Anticancer, Antimetastatic and Immunomodulatory Activities of Marine Algae in Cancer

(Viva voce completed on September 2018)



Ms. Fazeela Mahaboob Begum S M

(RRN: 141153107006)

17. Department of Chemistry

Title: Synthesis and Characterization of Functionalized 1,2,3-Triazoles Through Azide-Olefin [3+2] Cycloaddition

(Viva voce completed on September 2018)



Mr. D. Gangaprasad

(RRN: 1391140)

18. Department of Computer Applications

Title: Externalization of Expert's Knowledge in E-learning Environment

(Viva voce completed on September 2018)



Mr. A. Abdul Azeez Khan
(RRN:1194209)

19. Department of Computer Applications

Title: Personalized and Optimal Ranking System for Recommendation in heterogeneous Social Media Environment

(Viva voce completed on October 2018)



Mr. K. Javubar Sathick
(RRN:1194211)

20. Department of Information Technology

Title: Relative Stability based Routing Protocol for Mobile Ad Hoc Network

(Viva voce completed on October 2018)



Mr. P. Gnanasekaran
(RRN:1087202)

21. Department of Computer Applications

Title: Efficient Contrast – Enhancement Methodologies Based on Modified Histogram Equalization Technique for Improving Face Recognition Accuracy

(Viva voce completed on October 2018)



Mrs. G. Shreedevi
(RRN:1094205)

22. School of Life Science

Title: Programmed Cell Death and Autophagy Mechanisms are Critical Players During Saline Stress in Oryza Sativa L

(Viva voce completed on October 2018)



Mr. Mohd Shahanbaj Khan
(RRN:131153701003)

23. Department of Information Technology

Title: Energy-efficient Adaptive Optimization Framework for Mobile Cloud Computing

(Viva voce completed on October 2018)



Ms. Shakkeera L
(RRN:1187204)

24. Department of Computer Applications

Title: Enhanced Hybrid Classifier Techniques using Grey Wolf Optimization for Improved Detection Accuracy

(Viva voce completed on October 2018)



Ms. Vidhya Sathish
(RRN:0994203)

25. Department of English

Title: Teaching English to the Children (Upper Primary Level) of Government Schools in Jammu and Kashmir State through Task-Based Approach: An Experimental Study

(Viva voce completed on December 2018)



Mr. Nazir Ahmad Mir
(RRN:1392106)

26. Department of Mechanical Engineering

Title: Study and Analysis of Appropriate Spot Weld Distribution among the Welding Stations of Body Shop to improve Quality and Productivity

(Viva voce completed on December 2018)



Mr. G. Selvam
(RRN:1181206)

Most institutions demand unqualified faith; but the institution of science makes skepticism a virtue.

-Robert K. Merton



List of events organized



One day technical workshop on
Scholarly Article Writing and Journal Publications

Date : 13-03-2018

Venue: Seminar Hall I, BSACIST

Resource Person: Dr. T. Velmurugan, PG & Research Department of Computer Science, D. G. Vaishnav College (Autonomous), Chennai



Guest Lecture on
A Computation Analysis of Indus Valley Inscriptions

Date : 03-04-2018

Venue: Seminar Hall I, BSACIST

Resource Person: Mr. Md Izhar Ashraf, Project Assistant, The Institute of Mathematical Sciences (IMSc), Chennai



A workshop on
How to Make Mobile Resume Website in 3 Hours

Date : 21-4-2018

Venue: Seminar Hall I, BSACIST

Resource Person: Mr. Bharatwaj Ramakrishnan, Software Engineer ,Carat Lane , Chennai



Inauguration of
BSAR Cyber Physical Systems Research Centre

Resource Person: Dr K R Murali Mohan, Scientist-G & Head, DST, Ministry of Science & Technology, New Delhi



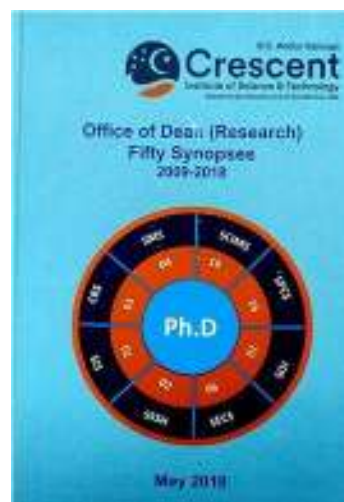
A workshop on

How to Make Mobile Resume Website in 3 Hours

Date : 20-22 JULY 2018

Venue: Seminar Hall II, BSACIST

Resource Person: Dr. Subhendu Chakrabarti, Chief Scientist, CLRI is the external resource persons and provided inputs on patenting process.



The office of Dean (Research) has compiled **BSA Crescent Institute of Science and Technology- first fifty Ph.D. synopses** submitted by the Research scholars during 2013 – May 2018. Our honorable Vice Chancellor has received the first copy of the compiled Book on 30.08.2018.

Office of Dean (Research)

B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai



Seminar on

How to write project proposal in International collaboration projects

Date : 2-11-2018

Venue: Seminar Hall I, BSACIST

Resource Person: Dr. C. Sivaji, senior scientist, Head, International Division, Department of Science and Technology (DST), Govt. of India, New Delhi.



Leadership Training for School Headmasters and Principals

Date : 10-12-2018

Venue: Auditorium, BSACIST

Resource Person: G Subba Rao, a retired IAS officer.



Inauguration of Center for Competitive Exams

Date : 12-12-2018

Venue: BSACIST

Resource Person: G Subba Rao, a retired IAS officer.