

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 Promotion of Research and Facilities

3.1.1 The institution has a well-defined policy for promotion of research and the same is uploaded on the institutional website

Yes, B.S. Abdur Rahman Crescent Institute of Science and Technology has a well-defined policy for promotion of research, with a well-defined code of Ethics, Plagiarism check and Incentives to the faculty to do quality research and also to take up consultancy.

All the above are clearly stated in our policy and also uploaded in our website.

File Description	Document
Minutes of the Governing Council/ Syndicate / Board of Management related to research promotion policy adoption	3.1.1 a
URL of Policy document on promotion of research, uploaded on website	3.1.1 b
Institutional Information	3.1.1 c

3.1.2 The institution provides seed money to its teachers for research (average per year)

210.07

3.1.2.1 The amount of seed money provided by institution to its faculty year wise during the last five years (INR in Lakhs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018 -19
INR in Lakhs	32.64	52.88	53.87	23.54	31.27	48.51

File Description	Document
Institutional information	3.1.2.a
Minutes of the relevant bodies of the University	3.1.2.b
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized.	3.1.2.c
List of teachers receiving grant and details of grant received (Data Template)	3.1.2 d

3.1.3 Number of teachers awarded international fellowship for advanced studies / research during the last five year

13

3.1.3.1: The number of teachers awarded international fellowship for advanced studies / research year wise during the last five years.

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018 -19
No. of Teachers	0	2	0	5	5	1

File Description	Document
Institutional information	3.1.3 a
E-copies of the award letters of the teachers	3.1.3 b
List of teachers and their international fellowship details (Data Template)	3.1.3 c

3.1.4 Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates, other research fellows in the university enrolled during the last five years

159

3.1.4: The Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows in the university enrolled year wise during the last five years.

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	38	26	44	32	29	28

File Description	Document
List of research fellows and their fellowship details (Data Template)	3.1.4 a
Institutional information	3.1.4 b

3.1.5 University has the following facilities

1. Central Instrumentation Centre
2. Animal House/Green House / Museum
3. Central Fabrication facility
4. Media laboratory/Business Lab/Studios
5. Research / Statistical Database

Options

- A. Any four facilities exist
- B. Three of the facilities exist
- C. Two of the facilities exist
- D. One of the facilities exist
- E. None of the facilities exist

A. Any four facilities exist

File Description	Document
Paste link of videos and geotagged photographs	3.1.5 a
Upload the list of facilities provided by the university and their year of establishment (Data Template)	3.1.5 b
Institutional information	3.1.5 c

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognition by government agency (Current year data).

61.9

3.1.6.1: The Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognition by government agency.

61.9

File Description	Document
Institutional information	3.1.6 a
e-version of departmental recognition award letters	3.1.6 b
List of departments and award details (Data Template)	3.1.6 c

3.2 Resource Mobilization for Research

3.2.1 Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (INR in Lakhs)

206.8

3.2.1.1: Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year wise during the last five years (INR in Lakhs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
INR in Lakhs	4.37	1.71	6.87	6.9	0.9	190.42

File Description	Document
Institutional information	3.2.1 a
e-copies of the grant award letters for research projects sponsored by non-government	3.2.1 b
List of project and grant details (Data Template)	3.2.1 c

3.2.2 Grants for research projects sponsored by the government sources during the last five years (INR in Lakhs)

984.48

3.2.2.1: Total Grants for research projects sponsored by the government sources year wise during the last five years (INR in Lakhs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
INR in Lakhs	60.65	356.65	142.57	126.54	112.18	246.54

File Description	Document
Institutional information	3.2.2 a
e-copies of the grant award letters for research projects sponsored by government	3.2.2 b
List of project and grant details (Data Template)	3.2.2 c

3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

0.31

3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years

74

3.2.3.2 : Number of full time teachers worked in the institution during the last 5 years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
INR in Lakhs	65.02	358.36	149.44	133.44	113.08	436.96

File Description	Document
List of research projects and funding details (Data Template)	3.2.3.2 a
Institutional information	3.2.3.2 b
Supporting document from Funding Agency	3.2.3.2 c
Paste Link for the funding agency website	3.2.3.2 d

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco-system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge

Crescent Innovation & Incubation Council (CIIC) has been established as a Section-8, not for profit company and acting as a "One Stop Shop . Technology Business Incubator (TBI)+for Start-ups. A full time CEO & Director has been appointed, who has a wide experience with Corporate background.

The Office of the CIIC has formulated the following Vision and Mission statement for its functions :

VISION

- To nurture our society by nudging the entrepreneurs with integrity, sustainability and innovation.

MISSION

- To facilitate the sparks of budding entrepreneurs.
- To inculcate the young student minds from ideation to start-up establishment, through mentoring.
- To bridge the start-ups with the angel investors & venture capitalists.

Under the CIIC umbrella, we have the following verticals :

Entrepreneurship Development Cell (EDC) – Seeding Entrepreneurship

- It was recognized by National Science & Technology Entrepreneurship Development Board (NSTEDB) in Feb 2004 with a grant of Rs.8 lakhs.
- We have active E- cell which is the core of entrepreneurship development department, driven by the student community.

Dr.APJ Abdul Kalam Innovation Centre - Nurturing Entrepreneurship

- It focuses on transforming innovative ideas into products of societal needs, by providing technical guidance, providing seed money, filing patents and helping students, to commercialize the products in the long run.

Crescent Innovation & Incubation Council – Demonstrating Entrepreneurship

- CIIC facilitates entrepreneurial & innovative ecosystem to all the stakeholders including the students, faculty, industry, investors and society at large.
- CIIC 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.
- Thrust area includes :

Industry 4.0

- IOT, Big Data, AI, Cyber Security, Machine Learning, Block chain, AR / VR.

Mobility & Transportation

- Auto, Aero, Marine, Space, Rail, Off-highway, Defence and Manufacturing.

Life Sciences

- Bio-Technology, Medical Devices & Agriculture.

Centre of Excellences

- IPR . Intellectual Property Rights Cell
- Centre for Qualitative Research in Human Nature and Organisational Politics
- Centre for Innovation in Teaching and Learning

The following have been achieved as on date :

- CIIC has a strong back-up of EDC predominantly run by student e-leaders, since 1999 and also Dr. APJ Abdul Kalam Innovation Centre which nurtures, early stage innovation and has funded 12 innovative projects.
- CIIC also has tie-up with Wadhvani Foundation, for providing Social Entrepreneurship Course, as a mandatory elective for all the final year students and tie-up with University of Missouri, USA for Life Sciences Innovation & Entrepreneurship course.
- CIIC is recognised as one of the Incubators, in "Start-up India Hub and Institutional Innovation Council" in the Ministry of Human Resource Development (MHRD) Innovation Cell (MIC).
- CIIC is the member of Indian Private Equity & Venture Capital Association, UBI Global, TIE Chennai and ISBA
- CIIC has been granted large sum of **Rs.1.8 Cr BIONEST Incubator grant** from Biotech Industry Research Assistance Council (BIRAC), Department of Biotechnology, Govt of India is the single largest grant ever received by our Institute.

File Description	Document
Institutional information	
Paste link for Institutional information	3.3.1 b

3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

3.3.2.1: Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry- Academia Innovative practices year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	4	75	104	78	71	69

File Description	Document
Report of the event	3.3.2.1 a
Institutional information	3.3.2.1 b
List of workshops/seminars during the last 5 years (Data Template)	3.3.2.1 c

3.3.3 Number of awards for innovation won by institution/ teachers/ research Scholars / students during the last five years.

117

3.3.3.1: Total number of awards for innovation won by institution/teachers/research scholars/students year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	11	26	20	24	25	22

File Description	Document
e- copies of award letters	3.3.3.1 a
List of innovation and award details (Data Template)	3.3.3.1 b
Institutional information	3.3.3.1 c

3.3.4 Number of start-ups incubated on campus during the last five years

16

3.3.4.1 Total number of start-ups incubated on campus year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	02	02	01	03	03	07

File Description	Document
e- sanction order of the University for the startups on campus	3.3.4.1 a
Institutional information	3.3.4.1 b
Contact details of the promoters for information	3.3.4.1 c
List of startups details like name of startup, nature, year of commencement etc	3.3.4.1 d

3.4 Research Publications and Awards

3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Yes

Institute has a clear code of ethics documented and being followed. For example, each Ph.D. thesis and also research papers are first checked for plagiarism using Turnitin software before accepting for evaluation by a committee. The institute accepts papers that are published indexed by Scopus, Web of Science and other peer reviewed journals. The list of predatory journals and publishers given by the Jeffrey Beall's List is available in the institution website.

File Description	Document
Institutional data in prescribed format	3.4.1 a
Institutional information	3.4.1 b

3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

Yes

File Description	Document
e- copies of the letters of awards	3.4.2 a
Institutional information	3.4.2 b
List of Awardees and Award details (Data Template)	3.4.2 c

3.4.3 Number of Patents published/awarded during the last five years

9

3.4.3.1: Total number of Patents published / awarded year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	0	0	0	5	2	2

File Description	Document
Institutional information	3.4.3.1 a
List of patents and year it was awarded (Data Template)	3.4.3.1 b

3.4.4 Number of Ph.D.s awarded per teacher during the last five years

1.0

3.4.4.1: How many Ph.D's are awarded within last 5 years

103

3.4.4.2 : Number of teachers recognized as guides during the last five years

102

File Description	Document
URL to the research page on HEI web site	3.4.4.2 a
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	3.4.4.2 b
Institutional information	3.4.4.2 c

3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years

4.24

3.4.5.1: Number of research papers in the Journals notified on UGC website during the last five years

Year	2014	2015	2016	2017	2018	2019
Number	239	244	232	203	243	168

File Description	Document
Institutional information	3.4.5.1 a
List of research papers by title, author, department, name and year of publication (Data Template)	3.4.5.1 b

3.4.6 Number of books and chapters in edited volumes / books published, and papers in national/international conference - proceedings per teacher during the last five years

2.65

3.4.6.1: Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year wise during the last five years

Year	2014	2015	2016	2017	2018	2019
Number	236	242	141	157	110	37

File Description	Document
List books and chapters in edited volumes / books published (Data Template)	3.4.6.1 a
Institutional information	3.4.6.1 c

3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

6.66

File Description	Document
Institutional information	3.4.7 a
Bibliometrics of the publications during the last five years	3.4.7 b

	3.4.7 c
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3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h- index of the Institution

42

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the University	3.4.8 a
Institutional information	3.4.8 b

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual

Yes

File Description	Document
Upload minutes of the Governing Council/ Syndicate/Board of Management related to consultancy policy	3.5.1 a
Upload soft copy of the Consultancy Policy	3.5.1 b
Upload any additional information	3.5.1 c
Paste URL of the consultancy policy document	3.5.1 d

3.5.2 Revenue generated from consultancy during the last five years. (INR in lakhs)

176.13

3.5.2.1: Total amount generated from consultancy year wise during the last five years (INR in lakhs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
INR in Lakhs	4.74	27.10	24.97	26.90	89.70	7.46

File Description	Document
Audited statements of accounts indicating the revenue generated through consultancy	3.5.2 a
Institutional information	3.5.2 b
List of consultants and revenue generated by them (Data Template)	3.5.2 c

3.5.3 Revenue generated from corporate training by the institution during the last five years (INR in lakhs)

290.05

3.5.3.1: Total amount generated from corporate training by the institution year wise during the last five years (INR in lakhs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
INR in Lakhs	50.95	90.32	42.59	24.65	54.28	78.21

File Description	Document
Audited statements of account indicating the revenue generated through training	3.5.3.1 a
Institutional information	3.5.3.1 b
List of teacher consultants and revenue generated by them (Data Template)	3.5.3.1 c

3.6 Extension Activities

3.6.1 Extension activities in the neighborhood community in terms of impact and sensitizing students to social issues and holistic development during the last five years

B.S.Abdur Rahman Crescent Institute of Science & Technology promotes institution . neighborhood -community network and student engagement, contributing to good citizenship, service orientation, adopting number of villages and holistic development of students.

- The Institute provides the students with an opportunity to extend their classroom knowledge into practical experience and to sensitize students to social issues.
- Through its diverse community oriented programmes and activities focused at holistic development of students with community. Co - curricular and extracurricular activities of the college aim at:
 - ✓ Developing a sense among students about attachment to the community
 - ✓ Learning to utilize their knowledge in finding solutions to community problems
 - ✓ Acquiring leadership qualities and democratic attitude
 - ✓ Developing capacity and skills to meet emergencies and natural disasters.
 - ✓ The College encourages student participation in community service by actively involving them in various campaigns and programmes.
- The awareness programmes are organized with the help of students and Faculty the in and around the institution
- Institute through student volunteers regularly conducts social outreach programmes. Faculty members and students are involved in organizing and participating these programmes.
- National Service Scheme (NSS) Institution has got approval from Govt. of India, Ministry of Youth Affairs and Sports regarding initiation of National Service Scheme. Students will voluntary participated in these activities and will encourage in improvement of various social activities as per the guidelines.
- The institute through NSS cell decides the calendar of activities that meet the objectives of the cell such as helping the society by Tree plantation, Blood

donation, help to orphanages, help the government in elections, processions, Awareness programmes Flood relief, rallies as per the needs specified.

- In addition to this, the institute undertakes the camp in order to help the villagers through various activities such as advocating cleanliness, computer literacy, lectures, and seminars on social aspects
- The institution has, NATIONAL SERVICE SCHEME for the holistic development of the student. The students participate in all the activities of community development
- The Institute is organizing various community development activities in order to maintain a good relation with the neighborhood community.

Institute regularly conducted the following programs through NSS:

- Tree Plantation Drives
- General Health/Dental/Eye related Medical camps
- Leadership Programmes
- Clean Drive Programmes
- Awareness Programmes/Rallies/Campaigns
- Personality Development programmes
- Skill Development Programmes
- Blood Donation Camps
- Regular blood donation camps bring awareness to students on the value of life and their own contribution in saving the same
- Important days celebration in and outside of the Institute
- Flood relief Programmes

Students are also actively participating in the extension work through different clubs (NSS, Crescent Blood Donor, HRD Club, Youth Red Cross Club, BSA Alumni Association etc)

Special guidance committee of teachers and students are formed in beginning of the session to interact with the new entrant and parents to guide them.

- ✓ College has the policy to invite parents at the time of admission, about 92-95% parents interact with the teachers

- ✓ The Institute makes wide arrangements to prevent ragging in the Campus before and during the classes of a new batch starting.
- ✓ Fresher day, Independence Day, Republic day, Science day, Teachers day are celebrated regularly.

LINK FOR ADDITIONAL INFORMATION is as follows

<https://crescent.education/wp-content/uploads/2019/08/3.6.1.a-1.pdf>

<https://crescent.education/naac-second-cycle/>

3.6.2 Number of awards and recognition received for extension activities from Government / recognized bodies during the last five years

200

3.6.2.1: Total number of awards and recognition received for extension activities from Government / recognised bodies year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	35	36	38	38	43	45

Total 234

File Description	Document
Institutional information	3.6.2.1 a
Number of awards for extension activities in last 5 year (Data Template)	3.6.2.1 b
e-copy of the award letters	3.6.2.1 c

3.6.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organizations through NSS/NCC/Red cross/YRC etc., during the last five years

214

3.6.3.1: Number of extension and outreach Programmes conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018 -19
Number	50	38	49	50	64	13

File Description	Document
Reports of the event organized	3.6.3.1 a
Institutional information	3.6.3.1 b
Number of extension and outreach Programmes conducted with industry, community etc for the last five years (Data Template)	3.6.3.1 c

3.6.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

81.6

3.6.4.1: Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and Programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	3564	3613	3876	3926	4420	4863

Total 24262

File Description	Document
Report of the event	3.6.4.1 a
Institutional information	3.6.4.1 b
Average percentage of students participating in extension activities with Govt. or NGO etc (Data Template)	3.6.4.1 c

3.7 Collaboration

3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange per year.

35

3.7.1.1: Total number of Collaborative activities for research, faculty exchange, student exchange year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	69	29	26	37	55	30

File Description	Document
Copies of collaboration	3.7.1.1 a
Institutional information	3.7.1.1 b
Number of Collaborative activities for research, faculty etc., (Data Template)	3.7.1.1 c

3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

750

3.7.2.1: Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	130	126	114	155	177	178

File Description	Document
e-copies of linkage related document	3.7.2.1 a
Institutional information	3.7.2.1 b
Details of linkages with institutions / industries for internship	3.7.2.1 c

3.7.3 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

184

3.7.3.1: Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the last five years

Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Number	18	29	35	50	50	20

File Description	Document
e-copies of the MoUs with institution / industry/ corporate house	3.7.3.1 a
Institutional information	3.7.3.1 b
Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years	3.7.3.1 c