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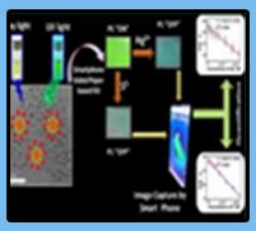
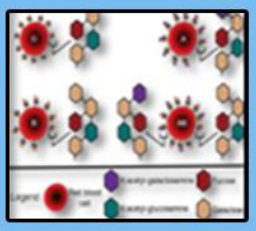
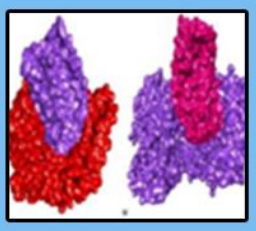
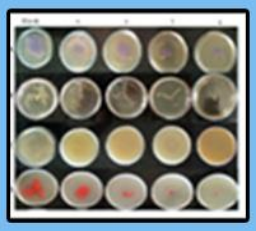
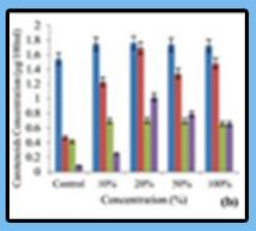
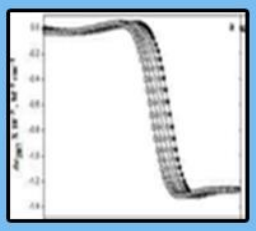
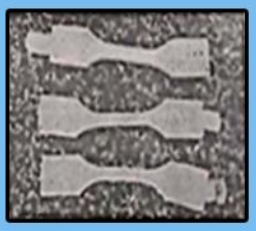
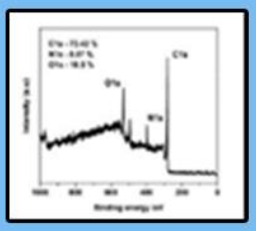
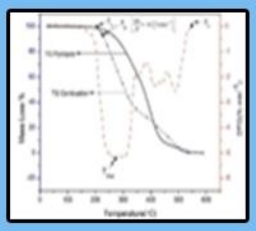
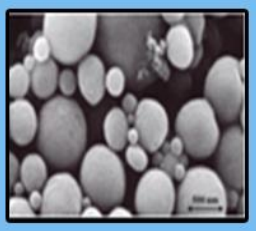
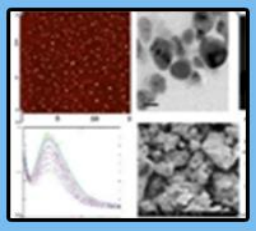
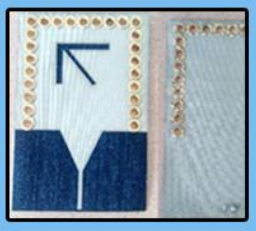
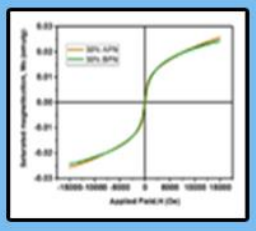
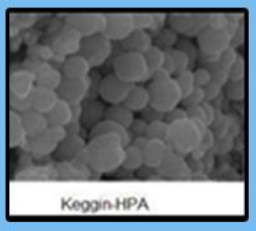
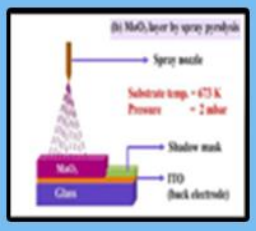
SEED MONEY REPORT 2019-20

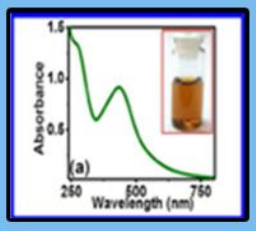





CSD - CENTRE FOR SUSTAINABLE DEVELOPMENT &
CENTRE OF SPONSORED RESEARCH AND INDUSTRIAL CONSULTANCY

FEB - 2022

No. Crescent/CSD/SMR/22022082

B.S. Abdur Rahman
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2019-20 Seed Money Report

B.S. Abdur Rahman Crescent Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956

Prof. A. Peer Mohamed,
Vice Chancellor

MESSAGE

B.S. Abdur Rahman Crescent Institute of Science and Technology has the distinctionof being one of the top ranking Indian Institutions providing quality education and also promoting advanced research through Innovative projects and Consultancy. I am happy to know that Centre for Sustainable Development has come out with a Seed Money Report (2019-20) book. This book is a compilation of the project completed by our faculty after receiving the seed money from Dean Research/CSD office during the year 2019-20.The performance of our faculty through Seed money projects is commendable.

B.S. Abdur Rahman Crescent Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956

Dr. A. Azad,
Registrar

MESSAGE

Inline with our institute's vision of promoting not only education but also research in multi- disciplinary areas of importance, the Seed Money report prepared by Centre for Sustainable Development (CSD) will surely encourage both the faculty and Research students to come up with new ideas and innovation. It is actually the need of the hour for all. I find the Seed Money book is well organized in a systematic way and I wish the CSD to further grow in promoting the projects in our institute.

Prof. I. Raja Mohamed
Dean (Research)

MESSAGE

Our Crescent Institute strives to become a "Research Intensive Institution" through various quality enhancement and sustainable initiatives. The Centre for Sustainable Development (CSD) of our Institution has come forward with its new initiative, 'Seed Money Report' 2019-20 to appreciate the researchers who have come forwarded to take up Pre Research studies for the preparation of good project proposals to be submitted to Government funding agencies. This initiative has supplemented the process of building up the conducive ambience to bring in research culture among UG, PG and Research Scholars of this institution. I appreciate the efforts of Director, CSD &his team with good luck in future endeavors.

Prof. T. Harinarayana
Director (CSD) & (CSRIC)

MESSAGE

It gives me absolute pleasure in preparation of the Seed Money Report, 2019-20 by our team. The report of 20 projects cost is Rs 5.1 Lakhs. I thank the faculties and students who have taken great effort in completing the seed money projects with the effective use of seed money provided by our institute. As a result of this, our faculty have come out with high quality research and publishing the results in High Quality Journals. We hope the seed money report will further promote more faculties and students to apply for new projects.

Dr.T.Harinarayana, Ph.D(ISM), Ph.D (UK)
Director, Centre for Sustainable Development
B.S Abdur Rahman Crescent Institute of Science and Technology
Seethakathi Estate, GST Road, Vandalur, Chennai

28-02-2022

FOREWORD

This seed Money Report is a compilation of the projects completed by our faculty after receiving the seed money from Dean (Research)/Centre for Sustainable Development (CSD) office during the Year 2019-20.It contains twenty projects with a total amount of Rs 5.1 Lakhs.

The details of the projects are Fabrication of new generation CuZnSnS based on solar cells, biomass derived magnetic nanomaterials, sustainable catalytic approaches for CO_2 fixation, direct transformation food waste into highly fluorescent carbon nanomaterials, Soot based carbon nanoparticle/polyimide nanocomposite for flexible Printed Circuits, biophysical analysis of caveolin-1 variant found in various cancers, production of micro algal liquids for selective promotion of commercial value plants, broad spectrum inhibition of microbial virulence factors, extremophilic marine endophytic bacterial assisted synthesis, cloning and characterization of mycobacterial membrane protein, development of magnesium based solid propellant, production and characterization of oil from plastic waste, strength properties and correlation analysis of natural fibre, impact of microbial species on the durability performance of green concrete, green synthesis and pharmacological evaluation of nanoparticles, design and development of wearable antennas, neurotoxicity screening of pesticides, study of physical and thermal stabilities and flame retardant unsaturated polester nanocomposite for electrical applications.

The above projects have resulted in eight research papers in scopus indexed journals. It is expected that our faculty will initiate major project proposals based on the results derived from seed Money Projects.

Dr .T.Harinarayana
Director, CSD

Circulars Issued for the Year 2019-20

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GST Road, Vandalur, Chennai-600 048

- *A Research Intensive Institution*

OFFICE OF DEAN (Research)

(Empowering CRESCENT through Exemplary Research)

Lr.No. 721 / Dean (R) / 2019 *Date: 25.07.2019*

CIRCULAR

Sub: Call for research proposals under Crescent Seed Money (CSM) scheme -2019

Ref: Vice Chancellor's instruction

Office of Dean (Research), B.S. Abdur Rahman Crescent Institute of Science and Technology, invites research proposals under Crescent Seed Money (CSM) scheme-2019.

Objective of the scheme:

- To encourage faculty members to get actively involved in the research activities.
- To motivate the faculty members to apply for research grants.
- To support research scholars and UG / PG) final year students to complete their project work successfully with publications.
- To enhance the number of research publications in the Scopus / Web of Science indexed journals.

Grant amount:

Rs. 50,000/- for faculty members
Rs. 20,000/- for scholars / students

Eligibility:

- Faculty members of Crescent with Ph.D. degree.
- Full time research scholars and final year UG / PG students have to apply through their supervisors.
- The applicant should not possess any other research grant funded by government / non-government agencies.
- Applicant should submit only one proposal against each call.

Deadline for submission

The proposal will be invited two times in an academic year. The last date of submission for this session is **31st August, 2019**.

How to apply

- The application format can be downloaded online *(https://crescent.education/ > Research > Downloads)*
- The filled in research proposal as per the format (***see Appendix A***) shall be submitted to Office of Dean (Research).
- A softcopy of the proposal (in PDF version) shall be sent to dean.academicresearch@crescent.education under subject **Research Proposal-Crescent Seed Money (CSM) - 2019.**

Duration:

- The duration of CSM scheme is minimum three months to maximum twelve months

Selection process:

- The selection will be based upon the expected scientific outcomes of research proposal.
- All the research proposals submitted under this scheme will be scrutinized by a committee and further it will be evaluated by Research Board.
- With due approval from the Vice Chancellor, the shortlisted project proposals will be sanctioned seed money grant.

Dean (Research)

Approved

Registrar

1.8.19

Details and list of Seed Money Sanctioned to the faculty during the Year 2019-20

B.S. Abdur Rahman Crescent Institute of Science & Technology
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A Research Intensive Institution

OFFICE OF DEAN (Research)

(Empowering CRESCENT through Exemplary Research)

Scrutiny of Applications received under Crescent Seed Money Scheme

S.No.	Name of the faculty/Student	Category	Dept.	Title of the Project	Amount required (Rs.)	Allotted Sanctioned (Rs.)
1.	Dr. R. Amiruddin	Faculty	Physics	Fabrication of new generation CuZnSnS based solar cells: Role of metallic nanoparticles in enhancement of efficiency of device	49920	45000
2.	Dr. Noor Aman Ahrar Mundari	Faculty	Chemistry	Biomass derived Magnetic Nanomaterials for Environmental Applications	50000	25000
3.	Dr. Rafik Rajjak Shaikh	Faculty	Chemistry	Sustainable Catalytic Approaches forCO_2 Fixation	50000	25000
4.	Dr. N. Vasimalai	Faculty	Chemistry	Direct transformation food waste into highly fluorescent carbon nanomaterials: Application for the effective photo catalytic detection of toxic dyes in industrial wastewater	50000	25000
5.	Mr. Harishankar / Dr. Revathi Purushothaman	Scholar	Polymer	Soot based Carbon nanoparticle/Polyimide nanocomposite for Flexible Printed Circuits in Aerospace Applications	20000	20000
6.	Dr. Shazia Jamal	Faculty	SLS	Biophysical analysis of caveolin-1 variantfound in various cancers	50000	40000
7.	Dr. Mubarakali	Faculty	SLS	Production of Micro Algal Liquids for Selective Promotion of Commercial Value Plants Growth for Immediate Commercialization	75000	40000
8.	Mr. Mashihur Rahman / Dr. MD Khurshid Alam Khan	Scholar	SLS	Broad spectrum inhibition of microbial virulence factors and biofilm by two selected Essential Oils	60000	20000
9.	Mr. Shariq Ahmed. M / Dr. S. Hemalatha	Scholar	SLS	Extremophilic marine endophytic bacterial assisted synthesis of nanoparticles to control lung cancer	20000	20000

10.	Mr. Logesh. R / Dr. Neesar Ahmed	Scholar	SLS	Cloning and characterization of mycobacterial membrane protein Rv1085c in PET28 + bacterial vector	20000	15000
11.	Dr. Thirumurugan. M	Faculty	Mech	Development of Magnesium Based Solid Propellant for Ramjet Engines	50000	40000
12.	Dr. S. Shamsath Begum	Faculty	Polymer	Production and Characterization of Oil from Plastic Waste for Commodity Applications	50000	5000
13.	Mohamed Riyaaz. N.A / Dr. J. Revathy	PG student	Civil	Strength Properties and Correlation Analysis of Natural Fibre Reinforced Quaternary Light weight Concrete Composites	23000	20000
14.	Dr. J. Revathy	PG student	Civil	Impact of Microbial Species on the Durability performance of Green Concrete for Sustainable Built Environment		20000
15.	Dr. S.M. Shaheedha	Faculty	Pharmacy	Green Synthesis and Pharmacological Evaluation of Nanoparticles impregnated with Manilkara zapota Seeds	30000	20000
16.	Dr. S. Hameed Kadar Ali	Faculty	Pharmacy	Rayon/Cotton based blood grouping strip	50000	50000
17.	Mr. Muthu Krishnan.R / Dr. G. Kannan	Scholar	ECE	Design and Development of Wearable Antennas based on Substrate Integrated Waveguide for Body Centric Wireless Communication	50000	20000
18.	Dr. Haja Nazeer Ahamed	Faculty	Pharmacy	Neurotoxicity Screening of Pesticides in Vegetable and Fruits using Brine Shrimps Membrane Acetylcholinesterase (AChE) – Exploring alternative animal model for Neurotoxicity.	25000	20000
19.	Mr. S. Dinesh/ Sri Nithya	Student	Aerospace	Study of Physical and thermal stabilities of Beeswax–EVA based fuel.	25000	20000
20.	Mr. Naveen Raj / Behera (Mrs.R.DaulathBanu)	Student	Polymer	Flame Retardant Unsaturated Polester Nanocomposite for Electrical Applications	21500	20000
			Total		**7,69,420**	**5,10,000**