



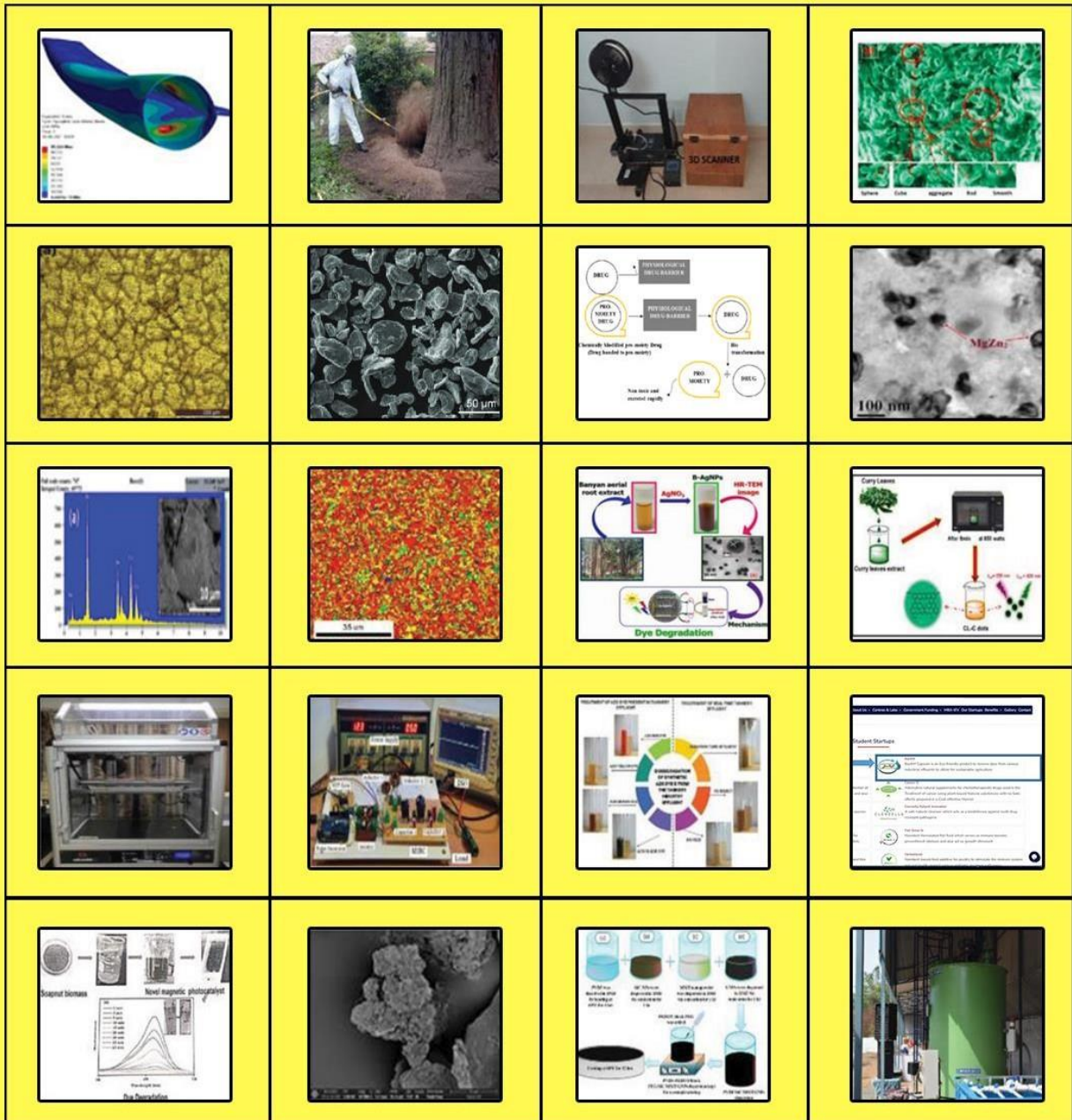
B.S. Abdur Rahman™

Crescent

Institute of Science & Technology

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

SEED MONEY REPORT 2020-21



CSD - CENTRE FOR SUSTAINABLE DEVELOPMENT

&

CENTRE OF SPONSORED RESEARCH AND INDUSTRIAL CONSULTANCY

MAY - 2023

No. Crescent/CSD/SMR/20230512



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MAY - 2023

Prof. Dr. T. Murugesan
Pro Vice Chancellor



MESSAGE

B.S. Abdur Rahman Crescent Institute of Science and Technology has the distinction of 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 (2020-21) book. This book is a compilation of the projects completed by our faculty after receiving the seed money from Dean Research/CSD office during the year 2020-21. The performance of our faculty through Seed money projects is commendable.

**Dr. N.Raja Hussain,
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 prepared in a systematic way and I wish the CSD to further grow in promoting the projects in our institute.



B.S. Abdur Rahman™

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Prof. I. Raja Mohamed Dean

(11th May 2017-19th Dec 2022)

MESSAGE

The thirty eight year old Institute, B.S Abdur Rahman Crescent Institute of Science and Technology has been striving systematically to become a “RESEARCH INTENSIVE INSTITUTION” through various quality enhancement and sustainable initiative for research since 2009. The Centre for Sustainable Development (CSD) of our Institution has come forward with its new initiative, 'Seed Money Report' 2020-21 to appreciate the researchers who have come forward 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 bringin research culture among UG, PG level students and Research Scholars of this institution. I appreciate the efforts of Director (CSD) & his team with goodluck in future endeavors.



Prof. T. Harinarayana

Director (CSD) & (CSRIC)

MESSAGE

It gives me absolute pleasure in preparation of the Seed Money Report, 2020-2021 by our team. The report of 20 projects with outcome in the form of publications, patents, products are provided. I thank the faculties and students who have taken great effort in completing the seed money project reports with the effective use of seed money provided by our institute. As a result of this, our faculty have come out with highquality research and publishing the results in High Quality Journals. We hope the seed money report will further promote more faculties and students to applyfor new projects.





Dr.T.Harinarayana, Ph.D(ISM), Ph.D (UK)
Director, Centre for Sustainable Development

FOREWORD

11-05-2023

This seed Money Report is a compilation of 20 projects completed by our faculty after receiving the seed money from Dean (Research)/ Centre for Sustainable Development (CSD) office during the Year 2020-21. It contains twenty projects with a total budget amount of Rs 8.81 Lakhs.

The details of the projects are - Studies on stereo selective ring opening of 1,2-anhydrosugars by enamines and nucleobases-application towards synthesis of new class of glycosidase inhibitors, Fabrication and Testing of supersonic air jet tool, AI Based low cost 3D Scanner and Printer for Industrial applications, Study on the Effect of pH on the Treatment of Acidic Blue Textile Dyeing Effluent by combined Novel Natural Coagulation Process, Industrial dye decolonization by laccase producing entophytic microbes: An ecofriendly green approach, A machine learning approach for Investigation of pipe flow parameters using vibration signals by non-contact method, Stability Indicating Analytical method development and validation of newer pharmaceutical formulations in bulk and its dosage forms by HPLC Technique, Dry sliding wear behavior of AL-ZN-MG-CU alloy +10% VOL. AL₂O₃ reinforcement prepared by mechanical alloying and uniaxial hot- pressing technique, Dry Sliding Wear Behavior of AA2219 Alloy with X wt% T1B2 Reinforcement prepared by squeeze casting technique, Dry Sliding Wear Behavior and Microstructural study of Ti-6Al-4V alloy subjected to cold rolling, Synthesis of Algal Peptides Mediated Nano-bio composites for Drug Delivery Molecule, A facile synthesis of Silver Nanocluster from hair waste and their sensitive detection of Glutathione and L-Cysteine in biological samples, A comparative study on mechanical properties of PLA, PETG and Carbon fibre prepared by Fused Deposition Modeling, Development and characterization of Sustainable Polymeric material for Packaging, Applications, Microbial-based treatment process for the decolorization and biodegradation of synthetic azo dyes from tannery industry, Pb-free, facile synthesis and study of perovskites nanocomposites for LEDs and optoelectronic device application, Dye removal from Textile Effluents using carbon based adsorbents, Structural Design Optimization And Failure Characterization of Composite Wind Turbine Blade Under Fatigue Loading, Preparation and Characterization of highly dispersible materials/metal nanoparticles reinforced polymer nanocomposites for effective electromagnetic interference shielding and other possible applications, Fabrication of Novel Low Cost Biogas Sensors.

The above projects have resulted in 20 research publications in indexed journals, 3 patents filed and 3 products. Additionally, 8 research papers are awaiting acceptance by the journal, 2 project proposals submitted for funding and one student start up initiated. It is expected that our faculty will initiate major funded project proposals based on the results derived from this seed money projects.

Report on the outcome of seed money by Principal Investigators for the year 2020-21

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