

Research Excellence and Innovation

Introduction

This report investigates the research focus areas and publication record of Dream Institute of Technology. It aims to assess DIT's commitment to research excellence and innovation.

Research Focus Areas

To understand DIT's research priorities, it's recommended to explore the following resources:

- **DIT Website:** Most universities have a dedicated research section on their website. This section often outlines the institution's strategic research areas, faculty expertise, and research centers.

Publications in Reputed Journals


Assessing DIT's publication record requires delving into scholarly databases. Here are some key resources:

- **Scopus:** This is a large citation database that indexes publications from a vast range of scientific disciplines. Using Scopus, you can search for publications affiliated with DIT and filter by publication date, journal title, and author.
- **Google Scholar:** While not a traditional citation database, Google Scholar can be a helpful tool to identify recent publications by DIT researchers.

Evaluating Reputable Journals

Not all journals are created equal. Here are some indicators of a journal's reputation:

- **Impact Factor:** This metric measures the average number of citations received by articles published in a journal over a specific period. Generally, journals with higher impact factors are considered more prestigious.
- **Publisher:** Well-established academic publishers are often associated with high-quality journals.
- **Peer-Review Process:** Reputable journals have a rigorous peer-review process to ensure the quality and originality of published research.


Dr. D. Sarkar
Principal
Dream Institute of Technology
Kolkata-700 104

Publications 2022-2023

List of Journal Papers:

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number	Link of the recognition in UGC enlistment of the Journal/ Link to Journal Homepage
Experimental investigation on the mechanical performance of the Al ₂ O ₃ and ZrO ₂ added Al-Mg-Si alloy for structural applications	Olusegun Adebayo Ogunnsanya, Abayomi Adewale Akinwande, R Raj Mohan, Henry Talabi, M Saravana Kumar, M Vignesh and Abhijit Bhowmik	Mechanical Engineering	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	2023	0954-4089	https://journals.sagepub.com/metrics/PIE
A grey-fuzzy based multi-response optimisation study on the friction and wear characteristics of titanium diboride reinforced aluminium matrix composite	Dipankar Dey, Abhijit Bhowmik, and Ajay Biswas	Mechanical Engineering	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering	2023	0954-4054	https://journals.sagepub.com/metrics/PIB

<p>Tribological characteristics of spark plasma sintered Al-6wt%SiC composite explored by Grey-Fuzzy optimization approach</p>	<p>VSS Venkatesh, PR Ganji, RN Rao, A Bhowmik</p>	<p>Mechanical Engineering</p>	<p>Journal of Materials Engineering and Performance</p>	<p>2023</p>	<p>1059-9495</p>	<p>https://link.springer.com/journal/11665</p>
<p>Assessment of Microstructure and Investigation into the Mechanical Characteristics and Machinability of A356 Aluminum Hybrid Composite Reinforced with SiCp and MWCNTs Fabricated through Rotary Centrifugal and Squeeze Casting Processes</p>	<p>P. Gurusamy, S. Hari Krishna Raj, Biplab Bhattacharjee, Abhijit Bhowmik</p>	<p>Mechanical Engineering</p>	<p>Silicon</p>	<p>2023</p>	<p>Electronic ISSN 1876-9918, Print ISSN 1876-990X</p>	<p>https://link.springer.com/journal/12633</p>
<p>Study of microstructural, machining and tribological behaviour of AA-6061/SiC</p>	<p>P. Gurusamy, Biplab Bhattacharjee, Hrishikesh Dutta, Abhijit</p>	<p>Mechanical Engineering</p>	<p>Silicon</p>	<p>2023</p>	<p>Electronic ISSN 1876-9918 Print ISSN 1876-990X</p>	<p>https://www.scopus.com/sourceid/19400158637</p>

<p>MMC fabricated through the squeeze casting method and optimized the machining parameters by using Standard deviation-PROMETHEE technique</p>	<p>Bhowmik</p>					
<p>Analysis of Physical, Mechanical and Tribological behavior of Al7075-Fly Ash Composite for Lightweight Applications</p>	<p>Abhijit Bhowmik, Raman Kumar, Atul Babbar, Valentin Romanovski, Sujit Roy, Lokeswar Patnaik, J. Pradeep Kumar & Ahmed Husstien Alawadi</p>	<p>Mechanical Engineering</p>	<p>International Journal on Interactive Design and Manufacturing (IJIDeM)</p>	<p>2023</p>	<p>1955-2513</p>	<p>https://www.scopus.com/sourceid/12000154536</p>
<p>Performance Evaluation of Nano-Material Stabilized Pond Ash as Subbase Layer Material for Roadway Pavement</p>	<p>Aditya Shankar Ghosh, Abhishek Roy and Dr. Tapash Kumar Roy</p>	<p>C.E</p>	<p>Materials Today: Proceedings on 2nd International Conference of</p>	<p>2023</p>	<p>ISSN: 2214-7853</p>	<p>https://www.sciencedirect.com/journal/materials-today-proceedings</p>

				Construction Materials and Structures				
New Frequency Domain Framework of Inverse Ground Response Analysis for the Determination of Dynamic Soil Properties of Multilayered System	Joy Kumar Mondal, Abhishek Kumar	CE	2023	<i>Indian Geotechnical Journal</i>	ISSN: 0971-9555		https://doi.org/10.1007/s40098-023-00791-8	
A new framework of inverse ground response analysis for the determination of dynamic soil properties of two-layered system	Joy Kumar Mondal, Abhishek Kumar	CE	2023	International Journal of Geomechanics	ISSN: 1943-5622		https://doi.org/10.1061/JGNALGMENG-8520	
Design and development of fusion-based expert system for multimodal biometric recognition with facemask authentication	Arindam Mondal, and Sahadev Roy	Electrical Engineering	2023	International Journal of Systems Engineering Publisher: International Science Publishers	ISSN:1748-0671 E-ISSN:1748-068X		UGC-CARE List Group II Journal (Scopus) https://www.scopus.com/sourceid/19500157056	
Design and Implementation of	Sujay Kumar Dolai,	Electrical Engineering	2023	Facta universitati	ISSN :0353-3670		UGC-CARE List Group II Journal (SCI)	

Fractional-Order Controller in Delta Domain	Arindam Mondal, Prasanta Sarkar	g	s - series: Electronics and Energetics		eISSN : 2217-5997	https://www.webofscience.com/wos/woscc/full-record/WOS:001025517400003
Design and development of dynamic gesture recognition system based on deep neural network for driver assistive devices	Arindam Mondal and Sahadev Roy	Electrical Engineering	International Journal of Systems Engineering Publisher: Inder Science Publishers	2023	ISSN:1748-0671 E-ISSN:1748-068X	UGC-CARE List Group II Journal (Scopus) https://www.scopus.com/sourceid/19500157056
Efficient and Lead-Free Perovskite Solar Cells Based on Defect-Ordered Methyl Ammonium Antimony Iodide.	Prithick Saha, Sangeeta Singh; Sanjib Bhattacharya	ECE	IEEE Transactions on Electron Devices	2023	Print ISSN: 0018-9383 ; Electronic ISSN: 1557-9646	https://mjcl.clarivate.com:/search-results?issn=0018-9383&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal
Higher Efficiency and Stability in Planar Homojunction Hybrid Antimony (MA3Sb2I9)- Based Perovskite Solar Cells	Prithick Saha; Sangeeta Singh; Sanjib Bhattacharya	ECE	IEEE Journal of Quantum Electronics	2023	Print ISSN: 0018-9197; Electronic ISSN: 1558-1713	https://mjcl.clarivate.com:/search-results?issn=0018-9197&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal
Application of a Trellis Coded	Trilochan Patra, Swarup	ECE	Indian Journal of	January, 2023	ISSN NO: 0974-6846	https://mjcl.clarivate.com:/search-results?issn=0974-6846

Modulation to Ameliorate the 5G Communication for Tropical Regions	Kumar Mitra	Science and Technology			6846&hide_exact_match_fl=true&utm_source=mjl&utm_medium=share-by-link&utm_campaign=search-results-share-this-journal
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List of Book Chapters in edited volumes/books published and papers published in national/international conference proceedings

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
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1	Aditya Shankar Ghosh and Dr. Tapash Kumar Roy	Soil Behavior and Characterization of Geomaterials	Elemental Assessment of Pond Ash for Evaluating its Applications as a Subbase Material for Hardstand	Indian Geotechnical Conference, 2021	Lecture Notes in Civil Engineering, vol 296	National	2022	Print ISBN 978-981-19-6512-8 Online ISBN 978-981-19-6513-5	Dream Institute of Technology	Springer Nature
2	Aditya Shankar Ghosh and Dr. Tapash Kumar Roy	REVISITING STRATEGIES FOR SUSTAINABLE DEVELOPMENT: an eConSus Book Series Vol. 2	Sustainable Industrial Waste Management: Pond Ash as a Sustainable Alternative Foundation Material for Pavement Subbase Construction	NA	NA	International	2022	ISBN: 978-93-94727-41-0	Dream Institute of Technology	Redshine Publications
3	Manasi Das, Agniva Dutta	NA	ECG DENOISING USING ADAPTIV	IEEE International Conference	IEEE International Conference	International	2022	Electronic ISBN:978-1-6654-	Dream Institute of Technology	IEEE

					Interdisciplinary Approaches in Technology Management for Social Innovation (IATMSI-2022)	Interdisciplinary Approaches in Technology Management for Social Innovation (IATMSI-2022)	E UNSCENT ED KALMAN FILTER			7719-2 Print on Demand (PoD) ISBN:978-1-6654-7720-8		
4	Aditya Shankar Ghosh, Abhishek Roy and Dr. Tapash Kumar Roy	Recent Trends in Transportation Infrastructure, Volume 1	Utilization of Lime Stabilized Pond Ash and Sand Mix Using Nanomaterials for the Subbase Course of Industrial Pavements	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:			2023	Print ISBN 978-981-99-3141-5 Online ISBN 978-981-99-3142-2	Dream Institute of Technology	Springer Nature
5	Asmita Poddar	Lithium Ion Glassy Electrolytes	Electrodes	NA	NA	NA			2023	Hardcover ISBN 978-981-19-3268-7 Softcover	Dream Institute of Technology	Springer Singapore

6	Aditya Shankar Ghosh, Abhishek Roy and Dr. Tapash Kumar Roy	Recent Trends in Transportation Infrastructure, Volume 1	Utilization of Lime Stabilized Pond Ash and Sand Mix Using Nanomaterials for the Subbase Course of Industrial Pavements	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:	International Conference on Transportation Infrastructure Projects : Conception to Execution TIPCE 2022:	2023	Print ISBN 978-981-99-3141-5 Online ISBN 978-981-99-3142-2	Dream Institute of Technology	Springer Nature
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Dr. D. Sarkar
Principal
Dream Institute of Technology
Kolkata-700 104

Seal
(Head of the Institute)

Signature
(Head of the Institute)