

Newsletter for May 2026
Department of Mechanical Engineering
Dayananda Sagar University
Bengaluru-562112



Dr. Shashidhar L

Faculty Development Programme Participation

Dr. Shashidhar L. C., Assistant Professor, Dayananda Sagar University, actively participated in the 5-Day Online Faculty Development Programme (FDP) on “Advanced Materials and Manufacturing Technologies” organized by the Department of Mechanical Engineering, Malnad College of Engineering, Hassan, from 04–08 May 2026. The FDP brought together academicians, researchers, and industry experts to discuss recent advancements in advanced engineering materials, modern manufacturing processes, sustainable production technologies, and emerging trends in materials research. The programme provided valuable insights into contemporary developments in manufacturing and materials engineering, fostering knowledge enhancement, interdisciplinary collaboration, and professional development. Participation in this FDP will contribute to strengthening teaching, research, and innovation activities within the Department and University.





Dr. K. Sudha Deepthi

Dr. K Sudha Deepthi, Manager - Bosch Rexroth COE & Asst. prof. - Dept. Of Mechanical Engineering has been nominated as Secretary, leadership team for the American Society of Mechanical Engineers ASME - SSDM (2026-2027). She has also published her research work titled “ Digital twin for Aeroservoelasticity” in lecture notes in Mechanical Engineering.





Home > [Advances in Structural Integrity for Mechanical, Civil, and Aerospace Applications](#) >

Conference paper

Digital Twin for Aeroservoelasticity

Conference paper | First Online: 01 April 2026

pp 333–342 | [Cite this conference paper](#)

 [Save conference paper](#)

K. Sudha Deepthi  & B. Rammohan

 Part of the book series: [Lecture Notes in Mechanical Engineering \(\(LNME\)\)](#)

 Included in the following conference series:
[Structural Integrity Conference and Exhibition](#)



**[Advances in Structural Integrity for
Mechanical, Civil, and Aerospace
Applications](#)**

(SICE2022 2022)

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Dr. P M G Bashir Asdaque, Faculty in the Mechanical Engineering department, has successfully passed and achieved 'Elite & Silver', as well as 'FDP' certificate in the NPTEL proctored exam for the course: Structural Dynamics for Civil Engineers - SDOF Systems. Also, he is listed as 'Topper' (i.e., holds Rank 1) in this exam.



Elite
NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to
P M G BASHIR ASDAQUE
for successfully completing the course



Structural Dynamics for Civil Engineers - SDOF systems

with a consolidated score of **88** %

Online Assignments	23.33/25	Proctored Exam	64.5/75
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Total number of candidates certified in this course: **38**


Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Feb-Mar 2026
(4 week course)


Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur



Indian Institute of Technology Kanpur



Roll No: NPTEL26CE30S550201093

To verify the certificate



No. of credits recommended: 2



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

P M G BASHIR ASDAQUE

for successfully completing the course

Structural Dynamics for Civil Engineers - SDOF systems

with a consolidated score of 88 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Feb-Mar 2026)

Roll No: NPTEL26CE30S550201093

Duration of NPTEL course : 4 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023



Mr. Ravindran S



Mr. Nagesh Rao N



Mr. Micheal Raj A

Mr. Ravindran S, Mr. Nagesh Rao N and Mr. Michael Raj A have successfully presented and completed defense seminar (final viva-voce) of M. Tech. by Research program (**1st BATCH**) under the coordination of Dr. P M G Bashir Asdaque.



Faculty Research Achievement: Scopus Indexed Book chapter Publication



Dr. Rahul Kumar, Associate Professor, Department of Mechanical Engineering, has published a **Scopus**-indexed book chapter titled “Experimental Investigation of Corrosion Behaviour of Zircon Sand and Molybdenum Disulphide Reinforced ZA-27 Hybrid Metal Matrix Composites” in the book Recent Innovations and Developments in Mechanical Engineering, published as part of the Lecture Notes in Mechanical Engineering series through ICRIDME 2024. This achievement reflects the faculty member’s commitment to high-quality research and continuous contribution to the university research ecosystem.

Home > Recent Innovations and Developments in Mechanical Engineering > Conference paper

Experimental Investigation of Corrosion Behaviour of Zircon Sand and Molybdenum Disulphide Reinforced ZA-27 Hybrid Metal Matrix Composites

Conference paper | First Online: 22 May 2026
pp 85–95 | [Cite this conference paper](#)

 [Save conference paper](#)

P. Pavan, G. Kishor, Rahul Kumar, Maneswar Rahang & P. M. G. Bashir Asdaque

 Part of the book series: [Lecture Notes in Mechanical Engineering \(\(LNME\)\)](#)



Recent Innovations and Developments in Mechanical Engineering
(ICRIDME 2024)

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FACULTY ACHIEVEMENT - MAY 2026 - Dr. JERRIN JOY VARUGHESE

Dr. Jerrin Joy Varughese, Assistant Professor, Department of Mechanical Engineering, School of Engineering, Dayananda Sagar University, achieved notable academic milestones during May 2026 through the successful completion of his doctoral research and scholarly contribution to an internationally reputed journal review process.

He successfully completed his Ph.D. Final Oral Viva-Voce Examination at Vellore Institute of Technology on 13th May 2026 in the domain of Advanced Polymer Nanocomposites. His doctoral thesis titled *“Influence of Modified Exfoliated Hexagonal Boron Nitride on Characteristics of Epoxy Nanocomposites and Prediction Based on Machine Learning and Deep Learning Techniques”* focused on the development of high-performance epoxy nanocomposites through advanced exfoliation, nanoparticle surface modification, hybrid reinforcement strategies, and AI-assisted predictive modelling techniques. The research demonstrated significant enhancement in mechanical and thermal characteristics with promising applications in aerospace, automotive, thermal management, and advanced structural engineering sectors.

Further strengthening his academic and scientific engagement, Dr. Varughese was recognized by Elsevier for his peer-review contribution to the internationally reputed journal Materials Letters (Q2) during May 2026. He received the *Certificate of Reviewing* in recognition of his valuable review contributions to the journal, reflecting active participation in maintaining global research quality and publication standards.





Prof. Karthik SB

TV9 Education Expo 2026 – Event Participation Report

Prof. Karthik SB, Mechanical Engineering Department, Dayananda Sagar University, Bengaluru visited the TV9 Education Expo 2026 at Police Bhavana, Shivamogga (2–3 May 2026) representing Dayananda Sagar University. Participated in student interaction, admission guidance, and university outreach activities during the event.





Dr. Manish Kumar Mishra



Dr. Saravana Bhavan D

Capstone Project Exhibition Report

Organized by: Department of Mechanical Engineering, School of Engineering, Dayananda Sagar University, Harohalli, Karnataka, India

Convenor: Dr. Saravana Bhavan D & Dr. Manish Kumar Mishra

Event Name: Project Expo – PRADARSHINI 2026

Date: 06 May 2026

Time: 10:00 AM onwards

Venue: Room No. A-405, SoE Block A, DSU, Harohalli

PRADARSHINI 2026, the Capstone Project Phase-II Exhibition organized by the Department of Mechanical Engineering, School of Engineering, Dayananda Sagar University, was successfully conducted on 06 May 2026 at Room No. A-405, SoE Block A, DSU, Harohalli. The event was convened by Dr. Saravana Bhavan and Dr. Manish Kumar Mishra under the guidance of the department and university management.

A total of seven groups of students participated in the exhibition and presented their innovative capstone projects before faculty members, judges, and visitors. The projects demonstrated practical application of mechanical engineering concepts, creativity, teamwork, and problem-solving abilities. The exhibition provided students with an opportunity to explain their technical ideas, working models, and project outcomes.

The projects were evaluated by the judges, Mr. Krishnappa GC, Deputy Manager at Bosch India, and Dr. Ranganatha Swamy MK, Associate Professor, JAIN Deemed to be University. The judges appreciated the efforts and technical knowledge displayed by the students and provided valuable suggestions for further improvement.

The event was conducted successfully with active participation from students and faculty members, encouraging innovation, technical learning, and research-oriented project development among engineering students.





Dr. Ravitej Y P

Dr. Ravitej Y P, Mechanical Engineering Department, Dayananda Sagar University published two Q2 and one Q1 research papers in “Canadian Metallurgical Quarterly”, “Journal of Bio- and Tribo-Corrosion” and “Discover Applied Sciences” journals in May 2026.

Journal of Bio- and Tribo-Corrosion (2026) 12:91
<https://doi.org/10.1007/s40735-026-01169-y>



Experimental Investigation and Predictive Modelling of Tribological Behaviour in Fly Ash Reinforced Polymer Composites Fabricated via Stereolithography

R. Keshavamurthy¹ · V. Suma² · C. S. Ramesh³ · Ali A. Rajhi⁴ · Alaauldeen A. Duhduh⁵ · Y. P. Ravitej⁶

Received: 31 March 2026 / Revised: 4 May 2026 / Accepted: 8 May 2026
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Abstract

Tribological evaluation of fly ash-reinforced UV-curable resin composites produced through stereolithography additive manufacturing formed the central focus of this study. Controlled fly ash additions extending up to 2% by weight were examined, and all tests ran under dry sliding conditions. Neat resin was designated as the experimental reference throughout. Even with the modest addition of 0.5% fly ash, wear came down by roughly 9.8%, which was small but directionally significant. Moving to 1% fly ash pushed wear reduction to 16.4%. At 1.5%, the reduction advanced further to 21.3% with all evaluations performed under identical testing conditions. The 2% fly ash specimen produced the highest wear reduction of 25.8% among all compositions examined. Frictional behavior followed a comparable declining trend across filler levels. At 0.5% fly ash COF fell 7.6% below the neat resin value, and at 1% that reduction grew to 12.9%. The 1.5% addition brought friction reduction to 17.4%. Total COF reduction at 2% fly ash reached 20.3%, which confirmed a steady and consistent frictional improvement with progressive filler incorporation. Linear regression and artificial neural networks and XGBoost-based gradient boosting were the three predictive frameworks developed alongside experimental work. All three tracked closely with measured tribological outcomes. Prediction accuracies reached up to 95.4% with lower error values documented across every model. The 2% fly ash formulation stood out as the most effective composition tested. It delivered the strongest combined improvements in wear resistance and friction stability while remaining fully compatible with the operational demands of additive manufacturing.



Canadian Metallurgical Quarterly

The Canadian Journal of Metallurgy and Materials Science

ISSN: 0008-4433 (Print) 1879-1395 (Online) Journal homepage: www.tandfonline.com/journals/ycmq20

Synergistic role of S-Glass and graphene on the wear performance of Al6061: experimental study and explainable machine learning analysis

Sripad Kulkarni, Mallikarjun Biradar, Roopa D N, Hemanth B R, Shivakumar K. Mallad, Santhosh M, Bindushree B S, Saravana Bavan D, Srikumar Krishnamurthy, Nadeem Pasha & Ravitej Y P

To cite this article: Sripad Kulkarni, Mallikarjun Biradar, Roopa D N, Hemanth B R, Shivakumar K. Mallad, Santhosh M, Bindushree B S, Saravana Bavan D, Srikumar Krishnamurthy, Nadeem Pasha & Ravitej Y P (09 May 2026): Synergistic role of S-Glass and graphene on the wear performance of Al6061: experimental study and explainable machine learning analysis, Canadian Metallurgical Quarterly, DOI: [10.1080/00084433.2026.2668303](https://doi.org/10.1080/00084433.2026.2668303)

To link to this article: <https://doi.org/10.1080/00084433.2026.2668303>

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Wear and coating performance analysis of zinc and ethanol on mild steel: thermal spray layers using experimental and machine learning approaches

Research | [Open access](#) | Published: 20 May 2026[Cite this article](#) You have full access to this [open access](#) article[Download PDF](#)  [Save article](#)[Discover Applied Sciences](#)[Aims and scope](#) →[Submit manuscript](#) →Sridhar S. Jetty, M. S. Vinay, Saravana Bavan, Y. P. Ravitej  M. Rajanish & H. L. Vinayaka[Sections](#) 17 Accesses [Explore all metrics](#) →[Abstract](#)



Prof. Abhijith N

Abhijith N, Assistant Professor, Department of Mechanical Engineering secured FDP certification in Structural Dynamics for Civil Engineers- SDOF systems from NPTEL. This course was conducted for a period of four weeks.



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

ABHIJITH N

for successfully completing the course

Structural Dynamics for Civil Engineers - SDOF systems

with a consolidated score of **61 %**



Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Feb-Mar 2026)

Roll No: NPTEL26CE30S550202603

Duration of NPTEL course : 4 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023