

Dr. K. SUDHA DEEPTHI



Manager - Bosch Rexroth Centre of Excellence

Asst. Professor – Dept. of Mechanical Engineering

School of Engineering, Dayananda Sagar University, Bengaluru, Karnataka, India

ASME Leadership & Student Chapter

Nominated as Secretary, Member at large – ASME Karnataka Section Leadership Team, ASME - Structures, Structural Dynamics, and Materials (SSDM) - IMECE, 2026-2028; Initiator of the ASME Student Chapter at DSU and serving as Faculty Advisor.

Professional Profile

Dr. K. Sudha Deepthi is an engineering educator, certified automation trainer, and academic administrator with experience spanning aerospace engineering, mechanical engineering, missile-related research support, industrial automation, technical training, student mentoring, and innovation initiatives. She currently serves as Manager at the **Bosch Rexroth Centre of Excellence & Asst. Professor** – Dept. of Mechanical Engineering at Dayananda Sagar University and continues to contribute to academic and professional activities in aerospace, automation, and engineering education.

Education and Early Career

Education: Dr. K. Sudha Deepthi has completed her **Ph.D. in the Department of Mechanical Engineering, Dayananda Sagar University in the area of Digital twins in Aeroservoelasticity and Natural Fiber Composites**. She obtained her M.Tech in Aerospace Engineering from JNTU Hyderabad (IARE, Dundigal) and her B.Tech in Mechanical Engineering from JNTU Anantapur.

DRDL experience: She began her career as a Project Assistant at DRDL (Defence Research & Development Laboratory), Hyderabad, where she developed MATLAB codes for optimizing the trajectory of Air-to-Air missiles, particularly the AGNI missile project.

Teaching experience: Worked as Assistant Professor in Aeronautical Engineering at the Institute of Aeronautical Engineering and at Malla Reddy College of Engineering & Technology, Hyderabad, and as Lecturer in Mechanical Engineering at JNTUH College of Engineering Hyderabad.

Project guidance: Guided undergraduate and postgraduate projects using ANSYS, CATIA, and MATLAB, and coordinated academic workshops including Avionics Systems in collaboration with the Aeronautical Society of India.

Industrial Automation and Bosch Rexroth Initiatives

She initiated the setting up of a Centre of Excellence for Automation Technologies in collaboration with Bosch Rexroth, Germany, at JNTU Hyderabad. She was trained and certified as a Certified Trainer by Bosch Rexroth Group, Bengaluru, in 2014. Her training and academic activities have covered hydraulics, pneumatics, robotics, mechatronics, sensors, programmable logic controllers, drives, control, and Industry 4.0. She has conducted certification courses, faculty development programs, internships, workshops, and student projects in these areas. She has also contributed to the RUSA project - a National Higher Education Mission initiative under the

Department of Higher Education, Government of India - at JNTU Hyderabad during 2014-2015. She has been associated with **Dayananda Sagar University since 2015**, serving as **Manager of the Bosch Rexroth Centre of Excellence (CoE)**. In this role, she has played a key part in the continuous development and upgradation of the Centre and has coordinated regular hands-on training and certification programs for students from **Dayananda Sagar University (DSU), Dayananda Sagar College of Engineering (DSCE), and Dayananda Sagar Academy of Technology and Management (DSATM)**. She has also supported **industry-oriented training and consultancy programs** and guided final-year student projects undertaken at the Centre.

In addition to her responsibilities at the Bosch Rexroth CoE, **Dr. Sudha Deepthi serves as an Assistant Professor in the Department of Mechanical Engineering**, contributing to **teaching, student mentoring, project guidance, curriculum-related activities, and various academic and administrative responsibilities** within the University.

AI Transformation and Industry-Integrated Curriculum

As part of the ongoing AI transformation in engineering education, she has mapped relevant academic courses to the Bosch Rexroth Centre of Excellence, creating a stronger connection between classroom concepts and hands-on industrial practice. This course-to-CoE mapping enables students to learn through industry-grade automation platforms, laboratory exercises, application-oriented demonstrations, and practical problem-solving, thereby giving the subjects a more experiential and industry-relevant approach. The initiative also supports the integration of emerging AI-enabled and smart-manufacturing perspectives with core engineering concepts, helping students understand how theoretical knowledge is applied in modern industrial environments.

Innovation, Hackathons and Academic Outreach

At Dayananda Sagar University, she has coordinated and supported innovation-oriented activities in addition to her role at the Bosch Rexroth Innovation Lab. She took the initiative to bring the NASA Space Apps Challenge Hackathon to DSU-SOE and served as an active coordinator/local lead for editions conducted at DSU, including the 2018 event and the virtual 2020 edition. She also served as Media Coordinator for Smart India Hackathon activities conducted at DSU in 2018. The profile records her involvement in academic publications, student projects, technical training, and incubation-related responsibilities.

Professional Memberships and ASME Leadership

- Life-time Associate Member of the Aeronautical Society of India.
- Professional Member of the American Society of Mechanical Engineers (ASME).
- **She has been nominated as Secretary, Member at large – ASME Karnataka Section Leadership Team, American Society of Mechanical Engineers (ASME) - Structures, Structural Dynamics, and Materials (SSDM) - International Mechanical Engineering Congress & Exposition (IMECE), for the 2026-2028 term. She has also served as session chair for the ASME – IMECE India 2026 conference.**
- Initiated an **ASME Student Chapter** at Dayananda Sagar University and is serving as **Faculty Advisor**.

Online Profiles

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