

Faculty Profile

Name : Dr. Prakash.K.R
Designation : Professor & Dean
Department : Mechanical Engineering
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About me: Possesses over **30 years of professional experience** spanning **industry, academia, and university administration**. Has successfully handled numerous **major projects in both industry and academic institutions, more than 20 years of experience in teaching and academic administration** in universities and higher education institutions has given me both managing and teaching skills. Possesses a strong background as an **Automation Engineer**, contributing significantly to both **industry and academia**. In industry, served in roles such as **Automation Engineer and Assistant Manager**, managing and executing several **large-scale industrial projects**. In academia and at **Visvesvaraya Technological University (VTU)**, served as **Special Officer for the Automation Centre of Excellence**, contributing to the development of advanced automation and robotics initiatives.

At the **National Institute of Engineering (NIE)**, held several key leadership roles including:

- **Dean – International Relations (IR)**
- **Head of the Department (Mechanical Engineering)**
- **Currently serving as Dean PG Studies.**

Also served as:

- **PG Coordinator**
- **Head, Centre for Automation and Robotics**

Actively involved in research and academic mentorship, currently **guiding 5 PhD scholars**, with **4 PhD scholars already awarded** under supervision.

Research and Achievements:

- **51 Research Publications**
- **2 Patent Awarded & 1 Copyright**
- **1 Patent Published**
- Recipient of the **Distinguished Professor Award in Automation and Robotics (2021)** for outstanding contributions.
- **Honoured by VTU** for significant academic and institutional contributions.

Successfully secured research proposal funding of ₹1.8 Crore for academic and research development.

Top of Form

Bottom of Form

Qualification:

B.E. (Bangalore Univ.), MTech (Mysore Univ.), Ph.D. (VTU, Belagavi)

Courses Taught: List of 5-6 UG courses taught in recent years

1. Hydraulics and Pneumatics
2. Mechatronics
3. Automation & Robotics
4. Control Engineering
5. Additive Manufacturing

List of 3-4 PG courses taught in recent years (if applicable)

1. Mechatronics and its application In Manufacturing
2. Modelling Simulation and Analysis and its application in Mfg. Systems
3. Drives and Control

Publications

Journal Publications

[1] R. Ravikiran, **K. R. Prakash**, K. M. Vaibhav, B. Sachin, C. D. Prasad and R. N. Babu, “Enhancing biodegradable lubricants with SiO₂ and TiO₂ nanoparticles: Effects on viscosity, tribological behavior, rheological performance, and sustainability,” Springer Science and Business Media Deutschland GmbH,2025.

[2] R. Kiran and **K. R. Prakash**, “Experimental investigations on the mechanical behavior of basalt fabric reinforced epoxy composites,” Springer Science and Business Media B.V,2025.

[3] Aruna Mokhamatam, **K. R. Prakash** and B. S. Sharmila, “SQ-3DP: A novel dataset for predicting surface quality in 3D printing using machine learning,” Seventh Sense Research Group,2024.

[4] V. Ravi Kumar, **K. R. Prakash**, S. K. Sahu and H. S. Balasubramanya, “Synthesis and characterisation of carbon nanofiber-wrapped polyaniline and polypyrrole sensory films in polyester resin for strain sensing,” Taylor & Francis Ltd., 2024.

[5] A. S. Shankar, M. Shivakumar and **K. R. Prakash**, “Occupancy grid map for a multi-robot system using LiDAR,” *SN Computer Science*, 2023.

[6] B. Harish, **K. R. Prakash** and R. Suresh, “Comparative study on dry sliding wear behaviour of TiAlN, ZrAlN and ZrN/Al₂O₃ hard coatings on ZA alloys,” 2022.

- [7] **K. R. Prakash**, V. Guruprasad and K. S. Nithin, “Smart dispensing of ingredients using VL53L0X and piezoelectric polymer sensor,” in *Advances in Manufacturing, Automation, Design*, 2022.
- [8] **K. R. Prakash**, P. Narake and M. V. Ramya, “Implementation of industrial IoT laboratory for sensors,” 2022.
- [9] M. Basavanna, M. Shivakumar and **K. R. Prakash**, “Navigation of mobile robot through mapping using Orbbec Astra camera and ROS in an indoor environment,” 2022.
- [10] R. Kiran, **K. R. Prakash**, P. Chandra, V. R. Kumar, P. B. Asha and C. R. Prakash Rao, “Experimental study on polymer nanocomposites-based strain sensors for structural health monitoring,” *Journal of Minerals and Materials Characterization and Engineering*, vol. 9, pp. 512–527, 2021.
- [11] M. V. Ramya, G. K. Purushothama and **K. R. Prakash**, “An approach to convert conventional laboratories into IoT enabled laboratories,” *International Journal of Web-Based Learning and Teaching Technologies*, vol. 16, no. 5, 2021.
- [12] A. S. Shankar, M. Shivakumar and **K. R. Prakash**, “Implementation of ICP-SLAM algorithm on Fire Bird V for mapping of an indoor environment,” in *Proc. 3rd Int. Conf. Integrated Intelligent Computing Communication and Security (ICIIC)*, 2021, pp. 647–651.
- [13] V. Ravikumar, **K. R. Prakash** and K. S. Nithin, “Strain sensing and characterization of CNFs wrapped with polyaniline/polypyrrole based polymer composites,” *International Journal of Mechanical and Production Engineering Research and Development*, vol. 10, no. 2, pp. 1267–1274, 2020.
- [14] M. V. Ramya, G. K. Purushothama and **K. R. Prakash**, “M-learning based remote laboratory for electronics experiments,” *International Journal of Online and Biomedical Engineering*, vol. 16, no. 11, pp. 4–15, 2020.
- [15] M. V. Ramya, G. K. Purushothama and **K. R. Prakash**, “Design and implementation of IoT based remote laboratory for sensor experiments,” *International Journal of Interactive Mobile Technologies*, vol. 14, no. 9, pp. 227–238, 2020.
- [16] M. Baradabadi and **K. R. Prakash**, “A method of producing patterned quartz slabs,” *International Journal of Research in Engineering, Science and Management*, vol. 3, no. 5, 2020.
- [17] P. Narake and **K. R. Prakash**, “Development of humanoid robot for indoor applications,” *International Journal of Scientific Research in Mechanical and Materials Engineering*, vol. 4, no. 7, 2020.
- [18] A. S. Shankar, M. Shivakumar and **K. R. Prakash**, “A survey on frontier based strategies for multi robot exploration,” *International Research Journal of Engineering and Technology*, vol. 7, Special Issue, pp. 532–538, 2020.

- [19] V. Umesh, J. B. Simha, **K. R. Prakash** and M. P. Praveen, “New framework for robot assisted minimum invasive surgery,” *International Journal of Advanced Science and Technology*, vol. 29, no. 3, pp. 476–482, 2019.
- [20] M. R. Neha, G. Madan, **K. R. Prakash** and C. S. Shivraj, “Design and development of smart containers using smart sensors to maintain inventory,” *International Research Journal of Engineering and Technology*, vol. 6, no. 6, pp. 593–598, 2019.
- [21] R. Srinivas and **K. R. Prakash**, “Design and development of a prototype of an agribot for multiple farming applications and NPK sensing,” *International Journal of Engineering Research and Technology*, vol. 7, no. 10, 2019.
- [22] T. S. Bharat, S. Prasad and **K. R. Prakash**, “Design and development of automated and programmable testing rig for sensor characterization,” *International Journal of Engineering Research and Technology*, vol. 7, no. 10, 2019.
- [23] Harshitha and **K. R. Prakash**, “Implementation of lane centering algorithm using model predictive controller,” *International Journal of Engineering Research and Technology*, vol. 7, no. 10, 2019.
- [24] T. M. P. Tejasvi and **K. R. Prakash**, “Automation of NetAct integration process using robot framework,” *International Journal of Engineering Research and Technology*, vol. 7, no. 10, 2019.
- [25] R. Kumar and **K. R. Prakash**, “Mathematical modelling of unsaturated isophthalic resin’s curing cycle,” *International Journal of Mechanical and Production Engineering Research and Development*, vol. 8, no. 2, pp. 805–810, 2018.
- [26] S. Sudhanva, **K. R. Prakash** and B. S. Kumar, “Implementation of drive kinematics for a self-driving car,” *International Journal of Engineering Development and Research*, vol. 5, no. 2, pp. 1444–1456, 2017.
- [27] **K. R. Prakash**, R. Beeranur and P. Kumar, “Development of etch surface on EUS needle,” *International Journal of Research*, vol. 4, no. 8, pp. 786–791, 2017.
- [28] M. V. Ramya and **K. R. Prakash**, “Wi-Fi controlled automatic food maker,” in *IEEE Conference Proceedings*, pp. 704–708, 2017.
- [29] M. V. Ramya, G. K. Purushothama and **K. R. Prakash**, “PLCs based remote laboratory platform for learning electrical drive control applications,” in *Proc. Int. Conf. Signal, Image Processing, Communication and Automation*, pp. 74–76, 2017.
- [30] G. Vinush, M. V. Achutha and **K. R. Prakash**, “Dry sliding wear behaviour of nickel aluminide coated on zinc aluminium alloy metal matrix composite for anti-friction applications,” *International Journal of Current Engineering and Technology*, vol. 5, no. 3, pp. 1836–1840, 2015.
- [31] C. N. Kaushik and **K. R. Prakash**, “Design and development of automation system for polyurethane foaming machine,” *International Journal of Research Studies in Science, Engineering and Technology*, vol. 2, no. 6, pp. 33–41, 2015.

[32] H. M. Mallaradhya and **K. R. Prakash**, “Automatic liquid filling to bottles of different height using programmable logic controller,” *International Journal of Mechanical and Production Engineering*, vol. 1, no. 4, pp. 9–11, 2013.

[33] B. M. Girish, **K. R. Prakash**, B. M. Satish and P. K. Jain, “An investigation into the effects of graphite particles on the damping behavior of ZA-27 alloy composite materials for tribological applications,” *Materials and Design*, vol. 32, pp. 1050–1056, 2011.

[34] B. M. Girish, **K. R. Prakash**, B. M. Satish, P. Jain and K. B. Devi, “Need for optimization of graphite particle reinforcement in ZA-27 alloy,” *Materials Science and Engineering A*, vol. 530, pp. 382–388, 2011.

Conference Publications

[1] **K. R. Prakash**, P. Narake, M. V. Ramya and V. Guruprasad, “Implementation of Industrial IoT Laboratory for Sensors,” in *Proc. International Conference on Future Technology*, NIT Puducherry.

[2] M. Basavanna, M. Shivakumar and **K. R. Prakash**, “Navigation of Mobile Robot through Mapping Using Orbbec Astra Camera and ROS in an Indoor Environment,” in *Proc. International Conference on Future Technology*, NIT Puducherry.

[3] **K. R. Prakash**, V. Guruprasad and K. S. Nithin, “Smart Dispensing of Ingredients Using VL53L0X and Piezoelectric Polymer Sensor,” in *Proc. International Conference on Future Technology*, NIT Puducherry.

[4] A. S. I. Shankar, M. Shivakumar and **K. R. Prakash**, “Implementation of ICP-SLAM Algorithm on Firebird V for Mapping of an Indoor Environment,” *Atlantis Highlights in Intelligent Systems*, vol. 2, pp. 647–651.

[5] **K. R. Prakash**, M. V. Ramya and Vinutha, “Mobile Robotics Software Reviews,” *International Journal of Innovative Research in Advanced Engineering*, vol. 2, no. 5, pp. 78–84, 2015.

[6] B. V. Harsha and **K. R. Prakash**, “Control of Seam Welding for an Axle Housing Using Programmable Logic Controller,” *International Journal on Mechanical Engineering and Robotics*, vol. 1, no. 2, pp. 1–7, 2013.

[7] H. R. Amriya Tasneem, **K. R. Prakash** and S. N. Ravi Shankar, “Introduction of PLC-Based Remote Laboratory for Modular Mechatronics System,” *International Journal of Emerging Technology and Advanced Engineering*, vol. 2, no. 7, pp. 328–333, 2012.

Patents Granted & Published

[1] K. R. Prakash, “Method and System for Performing Experiments in a Remote Laboratory,” **Indian Patent**, Patent No. **365876**, Application No. **201941041529**, **Status: Granted**, 2021.

[2] K. R. Prakash, “A System and Method for Cooking Using a Programmable Cooking Device,” **Indian Patent**, Patent No. **544111**, Application No. **6018/CHE/2014**, **Status: Granted,2024**

PhD Guiding/Guided

1	Ramya	Developing A remote Laboratory forElectrical Science Education	Awarded
2	Ravikumar.V	Characterization of Polymer Carbon Nano Fiber Composites for strainmeasurement	Awarded
3	Umesh.V.	Study on the Effectiveness of imageguided Medical Robots Using DeepLearning	Awarded
4	Harish.B	Characterization of Ni3 Al on ZA27antifriction bearing material	Awarded
5	Kiran, R	Characterization of Polymer Nanocomposite for strain measurement	Comprehensive Completed
6	Ravikiran Naik	Development of Bio Grease tribological application	Colloquium completed
7	Chandra Shekar	Development Of Sustainable For2 Wheelers and three wheelers In India.	Course Completed
8	Aruna Mokhamatam	Implementation of Machine Learning Techniques for Improving the Overall Equipment Effectiveness in Manufacturing Industry Using Big Data	Colloquium completed
9	RavalNath Bhat	Image Processing In the Quality Management of the Automotive Industry	Registered in 2024-25
10	Sriraksha	Image Processing for Quality Assessment of fused filament fabricaded Components	Registered 2024-25

M-Tech Guiding/Guided

1	M-Tech	Number of students Guided	61
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Resource Person for Training conducted by VTU during deputation to VTU as Special Officer

Sl No	Training Duration	Nature of the assignment	Institution
1	09.04.2010 to 11.04.2010	Basic Hydraulics & Pneumatics	N.I.E & S.J.C.E, Mysore
2	12.04.2010 to 14.04.2010	Basic Hydraulics & Pneumatics	VidyaVikas Institute of Engineering & Technology, Mysore
3	20.04.2010 to 23.04.2010	Basic PLC & Sensorics	GSSS Institute of Engg & Techfor Women College, Mysore
4	15.06.2010 to 18.06.2010	Pneumatics & Electro pneumatics	GT&TC, Bangalore
5	22.06.2010 to 24.06.2010	Basic PLC	GT&TC, Bangalore
6	06.07.2010 to 10.07.2010	Robotics & Mechatronics	(1 st Batch) Maharaja Institute of Technology, Mysore
7	12.07.2010 to 16.07.2010	Robotics & Mechatronics	(2 nd Batch) Maharaja Institute of Technology & V.V.C.E, Mysore
8	06.08.2010 to 08.08.2010	Basic Hydraulics & Pneumatics	National Institute of Engineering, Mysore
9	04.08.2010 to 05.08.2010	PLC (Programmable Logic Controller)	G T & T C, Bangalore
10	20.10.2010 to 22.10.2010	Basic Hydraulics & Pneumatics.	Gogte Institute of Technology, Belgaum
11	21.10.2010 to 23.10.2010	Basic Hydraulics & Pneumatics	E.P.C.E.T, Bangalore
12	30.10.2010 to 01.11.2010	Basic Hydraulics & Pneumatics	S.I.E.T, Tumkur
13	12.11.2010 to	Basic Hydraulics & Pneumatics	N.I.E, Mysore
14	27.12.2010 to 29.12.2010	Basic Hydraulics & Pneumatics	N.M.A.M.I.T, Nitte.
15	30.12.2010 to 01.01.2011	Basic Hydraulics & Pneumatics	N.M.A.M.I.T, Nitte.
16	04.01.2011to 06.01.2011	Basic Hydraulics& Pneumatics	St.J.E.C, Mangalore
17	08.01.2011to 10.01.2011	Basic Hydraulics& Pneumatics	St.J.E.C, Mangalore
18	11.01.2011to 12.01.2011	Basic Hydraulics& Pneumatics	St.J.E.C, Mangalore
19	16.01.2011to 18.01.2011	Basic Hydraulics& Pneumatics	S.I.E.T, Tumkur.
20	12.02.2011to 14.02.2011	Basic Hydraulics& Pneumatics	S.E.A College of Engg & Technology, Bangalore.

21	04.04.2011to 13.04.2011	Basic Hydraulics& Pneumatics	Bosch Rexroth Limited, Bangalore
22	18.04.2011to 27.04.2011	Basic Hydraulics& Pneumatics	Bosch Rexroth Limited, Bangalore
23	12.11.2011to 13.11.2011	Basic Hydraulics& Pneumatics	NIE, Mysore
24	06.01.2012to 08.01.2012	Basic Hydraulics& Pneumatics	Govt. Polytechnic College
25	13.01.2012to 17.01.2012	Basic Hydraulics& Pneumatics	AMC Engineering collegeBangalore
26	25.01.2012to 28.01.2012	Basic Hydraulics& Pneumatics	Dr AIT & BIT Engineeringcollege Bangalore
27	13-02-2012to 17-02-2012	Basic Hydraulics& Pneumatics	KGISL Institute of Technology, Coimbatore
28	19-02-2012to 23-02-2012	Basic Hydraulics& Pneumatics	KGISL Institute of Technology, Coimbatore
29	16-03-2012 to 18-03-2012	Basic Hydraulics& Pneumatics	Sri Venkateshwara College of Engineering, Bangalore
30	03-05-2012to 05-05-2012	Robotics & Mechatronics	PES College of Engineering,Mandy
31	13-05-2012to 14-05-2012	Basic Hydraulics& Pneumatics	NIE, Mysore

Corporate Training Programs

Sl. No.	Program / Course Title	Duration (From – To)	Sponsoring Agency
1	Mechatronics	03/08/2021 – 05/08/2021	L&T Group
2	Pneumatics	06/05/2021 – 07/05/2021	L&T Group
3	Mechatronics	09/07/2019 – 10/07/2019	L & T Group
4	Hydraulics Training	25/05/2019	L & T Group
5	Hydraulics	14/05/2019	L & T Group
6	Hydraulics and Pneumatics	07/05/2019 – 09/05/2019	L & T Group
7	Hydraulics Program	22/04/2019	L & T Group
8	Basics of Electro Hydraulics	02/04/2019	L & T Group
9	Research Techniques, Tools and Commercialization	25/01/2019	MIT, Mysuru
10	Research Proposal Preparation	05/09/2019	TEQIP / NPIU – JSSSATU Mysuru
11	Advancement in Manufacturing	22/07/2019	Teaching Learning Centre CIT

			Coimbatore & VVCE Mysuru
12	Hydraulics and Pneumatics Basics	27/06/2018 – 29/06/2018	L & T Group
13	Mechatronics Basics	21/05/2018 – 22/05/2018	L & T Group
14	Mechatronics Basics	19/04/2018 – 20/04/2018	L & T Group
15	Process Instrumentation Basics and Sensors	11/12/2017 – 15/12/2017	L & T Group
16	Hydraulics and Pneumatics Training Programme	17/07/2017 – 01/08/2017	L & T Group
17	Mechatronics	30/01/2017 – 31/01/2017	MIT, Mysuru
18	Mechatronics	02/02/2017 – 03/02/2017	MIT, Mysuru
19	Mechatronics	04/08/2016 – 05/08/2016	L & T Group
20	Mechatronics	22/08/2016 – 23/08/2016	L & T Group
21	PLC & SCADA	04/10/2016 – 05/10/2016	L & T Group
22	Robotics & Automation	01/09/2016	MIT, Mysuru
23	Hydraulics & Pneumatics for VTU-PG Belgaum	05/11/2014 – 07/11/2014	VTU
24	Hydraulics & Pneumatics for PESIT Shimoga	09/07/2014 – 10/07/2014	VTU
25	Hydraulics & Pneumatics for AMCE Bangalore	20/03/2014 – 21/03/2014	VTU
26	Hydraulics & Pneumatics for VTU-PG Belgaum	15/03/2014 – 16/03/2014	VTU
27	Hydraulics & Pneumatics for JNNC Shimoga	20/01/2014	VTU