



Dr R.Prakash

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BIOSKETCH

Dr R.Prakash obtained his Master's degree in Manufacturing Technology from the Regional Engineering College (REC), Tiruchirappalli and earned his Ph.D in Mechanical Engineering from PSG College of Technology, Anna University, Chennai.

He has over 30 years of teaching experience. During his academic career, he served in Department of Mechanical Engineering at PSG College of Technology for 18 years. Since July 2026, he has been serving as an Assistant Professor (Selection Grade) in the Department of Mechanical Engineering at PSG Institute of Advanced Studies, Coimbatore.

His areas of teaching and research interest include Engineering Graphics, Manufacturing Automation, CNC Technology, Pneumatic and Hydraulic Systems, Industrial Robotics, Operations Research and Advanced Manufacturing Processes. His research primarily focuses on the machining of CFRP composites. He has published several research papers in reputed journals, contributed book chapters, and successfully secured funded research projects in this area.

In recognition of his excellence in teaching, he received the "PSG Teacher of the Year 2019" award from PSG Sons' & Charities Trust.

Educational Profile

- **Doctor of Philosophy (Ph.D) in Mechanical Engineering**
Year of Passing: 2018
Thesis title: Investigations on Edge Trimming of Carbon Fiber Reinforced Polymer (CFRP) Composites
Thesis Supervisor: Dr V. Krishnaraj, Department of Production Engineering,
PSG College of Technology, Coimbatore.
Anna University, Chennai
- **Master of Engineering (M.E) in Manufacturing Technology**
Regional Engineering College (REC), Tiruchirappalli.
Bharathidasan University
- **Post Graduate Diploma in Business Administration (PGDBA)**
Annamalai University
- **Bachelor of Engineering (B.E) in Mechanical Engineering**
Madurai Kamaraj University
- **Diploma in Mechanical Engineering (D.M.E)**
Sakthi Institute of Technology, Sakthinagar, Erode

Positions Held

July 2026 – Present	Assistant Professor (Selection Grade) Department of Mechanical Engineering PSG Institute of Advanced Studies Peelamedu, Coimbatore.
June 2015 – March 2026	Assistant Professor (Selection Grade) Department of Mechanical Engineering PSG College of Technology Peelamedu, Coimbatore.
September 2010 – May 2015	Assistant Professor (Senior Grade) Department of Mechanical Engineering PSG College of Technology Peelamedu, Coimbatore.
June 2010 – August 2010	Lecturer (Senior Grade) Department of Mechanical Engineering PSG College of Technology Peelamedu, Coimbatore.
June 2008 – May 2010	Lecturer Department of Mechanical Engineering PSG College of Technology Peelamedu, Coimbatore.
June 2003 – June 2008	Lecturer Department of Mechanical Engineering Maharaja Engineering College Avinashi, Coimbatore.
October 1994 – August 2001	Senior Lecturer Annai JKK Sampoorani Ammal Polytechnic College T.N.Palayam, Erode.
July 1992 – June 1993	Graduate Apprenticeship Trainee Tamilnadu Motor Vehicles Maintenance Department Chennai.

Research Areas

- Machining of Composites
- Manufacturing Automation
- Optimization Techniques

Awards & Achievements

- Awarded 'PSG Teacher of the Year 2019' by PSG Son's & Charities Trust
- Qualified in Graduate Aptitude Test in Engineering (GATE) Examinations
 - ✚ GATE 2024
 - ✚ GATE 2025, and
 - ✚ GATE 2026
 in Production and Industrial Engineering (PI) Paper.
- Received Certificate of Honour in completing the course Auto CAD - IV Levels with Excellent (E) Grade from Lakhotia Computer Centre.

Research Group

- Dr V Krishnaraj, Professor, Department of Production Engineering, PSG College of Technology, Coimbatore.
- Dr Redouane Zitoun, Professor, ICA – Toulouse University, France / CINTRA – NTU Singapore.
- Dr Jamal Y. Sheikh-Ahmad, Professor, Western New England University.

Funded Projects

Project	Funding Agency	Grant	Duration	Role
Design and Development of Composite components using Resin Transfer Moulding	AICTE	19 Lakhs	Dec 2011 – Dec 2013 (2 Years)	Co PI
High Speed Machining of CFRP using Router Tools and Online Tool Life Monitoring using Acoustic Emission	UGC	4.1 Lakhs	Jan 2015 – Jan 2017 (2 Years)	PI

Conferences / Workshops / Seminars Conducted: 16

Industrial Training Programs Organized: Training program on “Design of Automation systems” for DETs and GETs of M/s Ashok Leyland (P) Ltd - **25 Batches** (from 2009 to 2013).

FDP/STTP/Workshop/Seminar Attended: 50

Consultancy Projects (Completed)

Consultancy project	Organisation
One day workshop on “Facing the Challenges through Value Engineering” for the ABT Employees.	ABT, Coimbatore
Surface roughness measurement of stainless-steel samples	ELGI ULTRA Grinders PVT. Ltd, Coimbatore

Membership in Professional Bodies:

- Life Member - Indian Society for Technical Education (ISTE), New Delhi
- Member - The Institution of Engineers (IE) (India), Kolkata (India)
- Life Member - Indian Society of Systems for Science and Engineering (ISSE), Thiruvananthapuram

International Conferences

- **Prakash R**, Tool wear and surface roughness study on high-speed edge trimming of CFRP using coated router tools, International Conference on Manufacturing Technology and simulation (ICMTS 2017), Manufacturing Engineering Section, Department of Mechanical Engineering, Indian Institute of Technology (IIT) Madras, Chennai, 7th & 8th July 2017.
- **Prakash R**, The study on the Mechanical and thermal behavior of SISAL/TEA/GLASS fiber reinforced epoxy-based Hybrid Composites, International Conference on Recent Advances in Mechanical Engineering (TEQIP II Sponsored), Department of Mechanical Engineering, Government College of Engineering, Salem. 2nd & 3rd March 2017.
- **Prakash R**, The study on the Mechanical and Thermal behaviour of SISAL/TEA/GLASS fiber reinforced epoxy-based Hybrid Composites, 8th International Conference on Advancements in Polymeric Materials (APM 2017), Central Institute of Petrochemicals Engineering & Technology (CIPET), Bangaluru, 11-13 February 2017.
- **Prakash R**, Experimental study of temperature effect and tool wear on machining of carbon fiber reinforced plastics, International Mechanical Engineering Congress-2014 (IMEC-2014), Department of Mechanical Engineering, National Institute of Technology, Trichy. 13-15, June 2014.
- **Prakash R**, Experimental study on Edge trimming of Unidirectional CFRP Composites, International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary developments (ICRAMID'14), Dept. of Mechanical Engineering, Ponjesly College of Engineering, Nagercoil. 8th March 2014.
- **Prakash R**, Minimization of rejection using Six Sigma methodology in manufacturing Industry, International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences (AMMMT 2013), Department of Mechanical Engineering and Department of Industrial Engineering and Management, Siddaganga Institute of Technology, Tumkur, 3-4 May 2013.

National Conferences

- **Prakash R**, Improvement of Overall Equipment Effectiveness (OEE) By Implementing Total Productive Maintenance in A Manufacturing Industry, 8th National Conference on Manufacturing Innovation Strategies and Appealing Advancements (MISAA 2018), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 27th April 2018.
- **Prakash R**, Productivity Improvement of Subassembly in a Horn Manufacturing Industry, 8th National Conference on Manufacturing Innovation Strategies and Appealing Advancements (MISAA 2018), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 27th April 2018.

- **Prakash R**, Prediction and optimization of tool life in machining of CFRP with coated router tools using Genetic and Differential algorithms, National Conference on Manufacturing Innovation Strategies and Appealing Advancements (MISAA 2015), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 2015.
- **Prakash R**, Optimization of surface quality in machining of CFRP with router tools using Simulated Annealing (SA) and Particle Swarm Optimization (PSO), National Conference on Manufacturing Innovation Strategies and Appealing Advancements (MISAA 2015), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 2015.
- **Prakash R**, Analysis of machining characteristics of Inconel 718 alloy using carbide tool insert, Ninth National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTTEST 2014), Department of Mechanical Engineering, Bannari Amman Institute of Technology, Sathyamangalam, 4-5 April 2014.
- **Prakash R**, Machining of CFRP-Numerical and Experimental study, Second National Conference on Emerging Trends in CAD/CAM/CIM (ETCCC 2012), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 12th April 2012.
- **Prakash R**, Assessment and Reduction of Cost of Quality, Second National Conference on Emerging Trends in CAD/CAM/CIM (ETCCC 2012), Department of Mechanical Engineering, PSG College of Technology, Coimbatore, 12th April 2012.
- **Prakash R**, Optimization of cutting parameters for surface roughness on edge trimming of CFRP material using Taguchi method, Seventh National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTTEST 2012), Department of Mechanical Engineering, Bannari Amman Institute of Technology, Sathyamangalam, 20-21 April 2012.
- **Prakash R**, Minimizing the paper defects using Six Sigma Methodology, Sixth National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTTEST 2011), Department of Mechanical Engineering, Bannari Amman Institute of Technology, Sathyamangalam, 15-16 April 2011

Journal Publications

- **Prakash R**, Krishnaraj V, & Jamal Sheikh-Ahmad, High-speed edge trimming of carbon fiber-reinforced polymer composites using coated router tools, Journal of Composite Materials, SAGE Publishers (2019), 0(0) 1-14.
- **Prakash R**, Krishnaraj V, & Jayachitra R, Prediction and optimization of tool wear in edge trimming of CFRP with coated router tools using Genetic and Differential algorithms, Journal

of Manufacturing Technology Research, Nova Science Publications, United States (2018). vol 10 Number 1-2, ISSN: 1943-8095.

- **Prakash R**, Krishnaraj V, Zitoune R & Jamal Sheikh-Ahmad, High-Speed Edge Trimming of CFRP and Online Monitoring of Performance of Router Tools Using Acoustic Emission, International Journal of Materials, MDPI Publishers (2016), vol. 9, no. 10, pp. 798.
- **Prakash R**, Krishnaraj V, Tarun, GS, Vijayagopal, M & Denesh Kumar, G, Experimental study on temperature effect and tool wear on Edge trimming of carbon fiber reinforced plastics, Journal of Applied Mechanics and Materials, Trans Tech Publications, Switzerland (2014), vols. 592-594, pp. 333-338.
- **Prakash R** & Krishnaraj V, Experimental Study on Edge Trimming of Unidirectional CFRP, Journal of Advanced Materials Research, Trans Tech Publications, Switzerland (2014), vols. 984-985, pp. 207-213.
- Anish B, **Prakash R**, & Krishnaraj V, Machining of Unidirectional Carbon Fiber Reinforced Plastics- Experimental and Numerical Study, National Journal of Technology (2013), Vol.9, No.2, ISSN - 0973 – 1334.

Book Chapter Published

- **Prakash R**, Krishnaraj V, (2021) Cutting Tools for Machining Composites. In: Shyha I., Huo D. (eds), Advances in Machining of Composite Materials. Engineering Materials, Springer, ISBN 978-3-030-71437-6, Cham. https://doi.org/10.1007/978-3-030-71438-3_18.