

## VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY



**Name :** Dr.Kode Jaya Prakash

**Designation:**Assistant Professor

**Department:**Mechanical Engineering

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**Experience (in years): Teaching: 13 Years Research: 1 Year Others (If any, Specify):**

### 1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1.	B. Tech	2007	Mechanical Engineering
2.	M.Tech	2009	Advanced Manufacturing Systems
3.	PhD	2021	Additive Manufacturing / 3D Printing

### 2. Teaching and Learning:

2.1. Teaching Interests: Metal Cutting, Additive Manufacturing

2.2. Novel Teaching & Learning Techniques adopted: NPTEL Lectures, POGIL, PPT'S

2.3. Involvement in curriculum updating / Design: ----

### 3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Collecting Technical videos regarding Assembly & Manufacturing of Automobiles
- Long Drives, Reading Books

3.2. CCA/ECA Organized: ---

3.3. CCA/ECA participated:----

3.4. Counseling and Mentoring Activity:

- Have been actively contributed in Mentoring students for professional life.
- Have motivated students in having regular seminars in the Department on emerging topics. Counseling Students regarding professional and personal issues.

3.5. Committees involved in:

Department level: Canteen Committee Member

Institute Level: Member in Anti-Ragging Committee

#### **4. Conference / Workshop / Seminar / Guest Lectures:**

4.1 Workshops Conducted:

- 19<sup>th</sup> to 20<sup>th</sup> March 2015 at VNR VJIET Hyderabad on “3D Printing” under TEQIP-II
- 25<sup>th</sup> to 27<sup>th</sup> February 2016 at VNR VJIET on “ Finite Element Methods in Mechanical Engineering”
- 3<sup>rd</sup> to 5<sup>th</sup> May 2016 at VNR VJIET on “Additive Manufacturing shaping the Future”.
- 21<sup>st</sup> to 25<sup>th</sup> November 2017 at VNR VJIET on “A Short Term Training Programme on ADAMS Software”
- 11<sup>th</sup> to 15<sup>th</sup> December 2017 at VNR VJIET on “Engineering Drawing Through AUTOCAD”
- 5<sup>th</sup> to 6<sup>th</sup> October 2018 at VNR VJIET on “3D Printing Workshop” under CONVERGENCE 2K18.
- 8<sup>th</sup> March 2019 at VNR VJIET on Mechzeal under ASME under Department of Mechanical Engineering, VNR VJIET.
- 25<sup>th</sup> to 29<sup>th</sup> November 2019 at Department of Mechanical Engineering, VNR VJIET on “Short Term Training Programme on 3D Printing Processing and Applications”.
- Resource Person for FDP on “3D Printing for Industrial & Biomedical Applications” held at VNR VJIET, Hyderabad in Association with NIT- Patna during 2<sup>nd</sup> to 6<sup>th</sup> December 2019.

- 27<sup>th</sup> to 28<sup>th</sup> October 2020 Organized and Co-coordinator for International Conference on Sustainable Development in Mechanical Engineering (SDME 2020) at Department of Mechanical Engineering, VNR VJIET.
- 15<sup>th</sup> – 19<sup>th</sup> February 2021 Organized and Co-Coordinator for AICTE Training and Learning (ATAL) Academy Faculty Development Programme on 3D Printing and Design, at Department of Mechanical Engineering, VNR VJIET.

#### 4.2 Attended:

- Workshop attended from 18<sup>th</sup> to 29<sup>th</sup> June 2012 at VNR VJIET Hyderabad on AICTE Sponsored “ Faculty Development Programme (FDP) in Entrepreneurship” conducted by the department of mechanical engineering.
- Workshop attended from 3<sup>rd</sup> to 15<sup>th</sup> June 2013 at VNR VJIET Hyderabad on AICTE Sponsored “Finite Element Applications in Civil Engineering” conducted by the department of civil engineering.
- Faculty Development Programme attended from 28<sup>th</sup> to 29<sup>th</sup> November 2013 at VNR VJIET Hyderabad on “Insights into Finite Element Analysis using ABAQUS Software” under TEQIP-II conducted by the department of mechanical engineering.
- Workshop attended from 16<sup>th</sup> to 17<sup>th</sup> December 2013 at VNR VJIET Hyderabad on “Additive Manufacturing” conducted by the department of mechanical engineering.
- Workshop attended from 19<sup>th</sup> to 21<sup>st</sup> December 2013 at VNR VJIET Hyderabad on “Non Destructive Testing” conducted by the department of mechanical engineering.
- National Workshop attended from 9<sup>th</sup> to 11<sup>th</sup> January 2014 at NIT Warangal on “Friction Stir Welding, NDT and Optimization” under TEQIP II conducted by the department of mechanical engineering.
- Workshop attended from 19<sup>th</sup> to 20<sup>th</sup> March 2015 at VNR VJIET Hyderabad on “3D Printing” under TEQIP-II conducted by the department of mechanical engineering.
- National Workshop attended from 5<sup>th</sup> to 9<sup>th</sup> May 2015 at NIT Warangal on “3D Printing- Hands on Experience” under TEQIP II conducted by the department of mechanical engineering.
- Attended two week ISTE STTP on Introduction to Structural Engineering conducted by Indian Institute of Technology Kharagpur from 30<sup>th</sup> November 2015 to 9<sup>th</sup> January 2016.

- Workshop attended from 25<sup>th</sup> to 27<sup>th</sup> February 2016 at VNR VJIET Hyderabad on “Finite Element Methods in Mechanical Engineering” under TEQIP-II conducted by the department of mechanical engineering.
- Workshop attended from 29<sup>th</sup> February to 5<sup>th</sup> March 2016 on “Composite Materials & its applications” at Anurag Group of Institutions, Ghatkesar, Hyderabad conducted by the department of Mechanical Engineering.
- Workshop attended from 9<sup>th</sup> to 11<sup>th</sup> March 2016 at VNR VJIET Hyderabad on “Recent Trends and Research Opportunities in Manufacturing Processes ” conducted by the department of Automobile Engineering.
- Workshop attended from 5<sup>th</sup> December to 10<sup>th</sup> December 2016 on “Hyper-Works & Computational Fluid Dynamics” at St.Martin’s Engineering College, Dhulpally, Secunderabad, conducted by the department of Mechanical Engineering.
- Workshop attended from 30<sup>th</sup> January to 1<sup>st</sup> February 2017 on “Advances in Research and Innovations in Mechanical Engineering” at Muffakham Jah College of Engineering & Technology, Hyderabad conducted by the department of Mechanical Engineering.
- Attended faculty development programme from 5<sup>th</sup> to 10<sup>th</sup> June 2017 on “3D Printing Technology in Engineering Education” under PMMMNMTT scheme conducted by Department of Mechanical Engineering at NIT Warangal.
- Attended faculty development programme from 25<sup>th</sup> to 29<sup>th</sup> June 2018 on “Computational Tools for Engineering Applications” at VNR VJIET Hyderabad conducted by Department of Mechanical Engineering.
- Attended faculty development programme from 1<sup>st</sup> to 5<sup>th</sup> April 2019 on “Mastercam and Cimco DNC” at VNR VJIET Hyderabad conducted by Department of Mechanical Engineering.
- Attended GIAN Course from 15<sup>th</sup> to 19<sup>th</sup> July 2019 on “Medical Prototyping using 3D Printing” conducted by Department of Mechanical Engineering at NIT Warangal.

- Attended faculty development programme from 24<sup>th</sup> to 28<sup>th</sup> September 2019 on “Automation Studio Software” at VNR VJMET Hyderabad conducted by Department of Mechanical Engineering.
- Attended faculty development programme from 19<sup>th</sup> to 23<sup>rd</sup> November 2019 on “Development, Characterization and Analysis of Composites” at VNR VJMET Hyderabad conducted by Department of Mechanical Engineering.
- Attended Faculty Development programme from 13<sup>th</sup> to 18<sup>th</sup> July 2020 on “Teaching and Learning of Additive Manufacturing Technology: Emphasis on Metal 3D Printing” conducted by Department of Mechanical Engineering at NIT Warangal.
- Attended AICTE Sponsored One week Online STTP Programme from 17<sup>th</sup> August- 22<sup>nd</sup> August 2020 on “ Powder Metallurgy Technologies for 3D Printing” Conducted by Department of Mechanical Engineering, Mepco Schlenk Engineering College, Sivakasi.
- Attended online Faculty Development Programme from 21<sup>st</sup> – 31<sup>st</sup> July 2022 on “Recent Challenges and Hands on Practice in Data Analytics and AI” Organized by E & ICT Academy, NIT Warangal and VNR VJMET, Hyderabad.
- Attended DST Sponsored National Level Training Programme from 22<sup>nd</sup> – 28<sup>th</sup> August 2022 on “Material Characterization, Modelling and Finite Element Analysis” organized by GRIET Hyderabad and GITAM University Visakhapatnam.

## **5. Academic Contribution and Research & Consultancy:**

5.1. Invited Lectures:

5.2. Articles/Chapters published in Books:

5.3. Books published as single author or as editor:

5.4. Projects Guided:

a) UG: 10

b) PG: 05

5.5. Research Interests: Additive Manufacturing

**Consultancy Works Done: 3D Printed RPT Model DUNEZE R & D Australia, to M/S Jytra Technology Solutions Pvt. Ltd on 2<sup>nd</sup> November to 20<sup>th</sup> November 2017 with a worth of Rs 20,000/-**

5.6. Ph.D students:

- a) Enrolled:
- b) Submitted:
- c) Awarded:

5.7. Papers published in reviewed Journals:

<b>S.No</b>	<b>Title of the Paper</b>	<b>Journal Name Vol.No. PP</b>	<b>ISBN/ISSN No.</b>	<b>Impact Factor/ Citation Index</b>	<b>National/ International</b>
1	A Comparative Study of Manual and Automated System of a Solar Semiconductor Module Manufacturing Unit- A Case Study	International Journal of Mechanical & Automobile Engineering Vol. 5 pp: 53-63	0974- 231X	0.54	International
2	Development of Mechanical System for Automated Commando Training System	International Journal of Advances in Science and Technology Vol 4 pp: 81-92	2229-5216	1.2	International

3	A Review of Friction Stir Welding Process & its Variables	International Journal of Science & Research, Vol. 2, pp. 375-379	2319- 7064	2.2	International
4	A Review on Recent Developments in Wire EDM	International Journal of Science & Research, Vol. 3, pp. 973-976	2319- 7064	2.2	International
5	Modeling of a walking robot for a 3D Printer	International Journal of Innovative and Futuristic Research, Vol.2, pp.3821-3828	2347- 1697	3.0	International
6	Modelling and Additive Mnaufacturing of a Missing Teeth Human Mandible	International Journal of Engineering and Advanced Technology	2249- 8958	4.0 Scopus	International
7	Advancement of 3D Printing Technology in Dentistry- A Review	Journal of Mechatronics, Machine Design and Manufacturing	2214-7634	0.64	International
8	Insights on Surface Characterization of 3D Printed Polymeric Parts	Materials Today	2214- 7853	Scopus Indexed	International
9	3D printed human	International	2550-6978	Scopus	International

	humerus bone with proximal implant prototype for arthroplasty	Journal of Health Sciences		Indexed	
10	Computational Modeling and Simulation for Productivity Improvement in a Pump Manufacturing Facility	Telematique	1856-4194	ESCI	International
11	Finite Element Analysis of a Patient Specific Maxillofacial Implant	International Journal of Engineering Trends and Technology	2231-5381	Scopus	International
12	Making of Religious Components Using Reverse Engineering Technology	Recent Advances in Mechanical Engineering	2195- 4356	Scopus	International
13	Optimization of Mechanical Performance for 3D Printed Kevlar and Carbon Fiber Composites	Materials Science Forum	1662-9752	Scopus	International

5.8. Papers presented at National / International Conferences:

<b>S.No</b>	<b>Title of the Paper</b>	<b>Names of the Conference/ Seminars</b>	<b>National/ International</b>	<b>Period</b>
1	Design and Modeling of the RTU Unit for Automated Commando Training Systems	International Conference on Material Processing & Characterization (ICMPC-2012)	International	March 2012



2	Analysis, Simulation and Fabrication of the RTU Unit for Automated Commando Training Systems	International Conference on Material Processing & Characterization (ICMPC-2012)	International	March 2012
3	Component Replication using 3D Printing Technology	International Conference on Nano materials and Technologies (CNT-2014)	International	October 2014
4	Comparative Study of Manual and Automated Process of a Solar Semiconductor Module Assembling Unit	National Conference on Advances in Manufacturing Engineering (NCAME-2010)	National	December 2010
5	Analysis of TQM Concepts in Technical Education	Recent Advancement in Manufacturing Engineering & Technology (RAMET-2011)	National	January 2011
6	Optimization of Process Parameters and Experimental Investigations in Turning of 6351 Aluminium Alloy with Dry, Flooded and Minimum Quantity Lubrication (MQL) Conditions on Cutting Temperature and Chip Morphology	Recent Advancement in Manufacturing Engineering & Technology (RAMET-2011)	National	January 2011

7	Additive Manufacturing of a Walking Robot Using a 3D Printer	International Conference on Emerging Trends in Mechanical Sciences (ICEMS-2015)	International	December 2015
8	Design and Manufacturing of a chess coin through CAD/CAM Integration Software	International Conference on Trends in Industrial and Mechanical Engineering	International	February 2016
9	Manufacturing of a Powerless Amplifier using 3D Printing Technology	International Conference on Technological Innovations in Mechanical Engineering (TIME 2016)	International	February 2016
10	A Review on 4D Printing: The Next Industrial Revolution	International Conference on Emerging Trends in Mechanical Engineering	International	January 2020
11	Functional Testing and Evaluation of Additively Manufactured hand drill body Prototype, Materials	SDME 2020	International	October 2020

	Today: Proceedings, <b>Scopus Indexed.</b>			
12	Additive Manufacturing of a Human Mandible and Finite Element Analysis of Dental Implant for Prosthodontic Applications” Materials Today: Proceedings, <b>Scopus Indexed.</b>	SDME 2020	International	October 2020

5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
1.	3D Printed Robotic Parts	Kopp 3D Innovations	25-02-2023	Rs 24,780/-	Completed
2.	Adjunct Professor for teaching computer Aided Engineering Graphics	CR Rao AIMCS-HCU	1-12-2022	Rs 1,20,000/-	Completed