

**Name:** Dr. Yeole Shivraj Narayan  
B.E., M.Tech., Ph.D, FIPE, MASME, LMISTE, MIAE  
**Designation:** Professor  
**Department:** Mechanical Engineering  
**Email ID:** shivrajyeole@vnrvjiet.in



**Experience** (in years): Teaching: 20      Research: 06 Others (If any, Specify): --

### 1. Educational / Technical qualifications:

S. No.	Level (UG / PG / Ph.D.)	Year of passing	Specialization
1	UG: B.E.	1999	Production Engineering
2	PG: M.Tech.	2002	Advanced Manufacturing Processes
3	Ph.D.	2016	Micromachining

### 2. Teaching and Learning:

#### 2.1. Teaching Interests:

Engineering Graphics, Engineering Drawing, Machine Drawing, CAD/CAM, Advanced CAD, Quality Engineering in Manufacturing, Simulation Modeling of Manufacturing Systems, Design for Manufacturing, Engineering Metallurgy, Engineering Metrology, Robotics, Instrumentation & Control Systems, Production Technology, CAD/CAM Lab, CAD Lab, Manufacturing Simulation & Precision Engineering Lab, Digital Manufacturing Laboratory, Manufacturing Processes & Simulation Laboratory.

#### 2.2. Novel Teaching & Learning Techniques adopted:

VNR Lab Protocol, WIT & WIL, POGIL, LBD, Online Tools-Mentimeter

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

- As Coordinator of Academics, coordinated the curriculum revision of UG & PG programmes and framing of academic regulations.
- As a member of Board of Studies of ME & AE, reviewed the entire syllabus.
- Modified the curriculum of CAD/CAM, Engineering Graphics-II and Interactive Computer Graphics subjects and CAD/CAM laboratory of B.Tech. (ME) programme.
- Modified the curriculum of Advanced CAD, Quality Engineering in Manufacturing subjects and CAD Laboratory of M.Tech. (AMS) & M.Tech. (CAD/CAM) programmes.
- Framed the curriculum of Digital Manufacturing Laboratory, Manufacturing Processes & Simulation Laboratory, Computer Aided Engineering Laboratory, Non-Destructive Testing, Advanced Manufacturing Processes, Advances in CAD/CAM, Simulation Modeling of Manufacturing Systems courses of M.Tech. (AMS) & M.Tech. (CAD/CAM) programmes.
- Framed the curriculum of 4 courses of Open Elective track on “3D Printing and Design” – Elements of CAD, Introduction to 3D Printing, 3D Printing Machines, Tooling and Systems and Reverse Engineering.

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

#### 3.1. Interests and Hobbies:

- Exploring new technologies
- Gardening
- Photography

#### 3.2. CCA/ECA Organized:

- Organized AICTE Training and Learning Academy Online FDP on “3D Printing & Design” during February 15-19, 2021 as a Coordinator.
- Organized AICTE sponsored International E-Conference on “Sustainable Development in Mechanical Engineering” (SDME 2020) during October 30-31, 2020 as an Organizing Secretary.
- Organized One Week Online FDP on “3D Printing-The Future of Manufacturing” during October 05-09, 2020 as a Coordinator.
- Organized Annual Day Function as Coordinator of Academics and Member of Programme Committee in 2017, 2018 & 2020.
- Organized one week FDP on Development, Analysis and Characterization of Composites from 19-23 November 2019 as an Organizing Member.
- Organized one-week STTP on “ADAMS Software” during November 2017. Venue: PG CAD Laboratory, VNR VJIET.
- Organized training programme on “ANSYS Software” during July 2016. Venue: PG CAD Laboratory, VNR VJIET.
- Faculty Coordinator for PG Projects of ME department for Open House 2017.
- Conducted training on “IronCAD Software” for the 13 M.Tech. students of Advanced manufacturing Systems course during October & November 2009 and served as the resource person. Venue: PG CAD-CAM Laboratory, VNR VJIET.
- Conducted training on “IronCAD Software” for non – teaching staff (08 members) of Mechanical Engineering department during September 2008 and served as the resource person. Venue: CAD-CAM Center, VNRVJIET.
- Organized various events and acted as a member of disciplinary committee during Sintillashunz 2007, 2008, 2011, 2013, 2014, 2015 & 2016.

#### 3.3. CCA/ECA participated:

- Acted as an Expert in External Academic Audit of EEE, ECE and EIE departments during December 2021
- Acted as Judge/Reviewer for various events in Institute technical fest “Convergence” and cultural fest “Sintillashunz”.

#### 3.4. Counseling and Mentoring Activity:

- Mentor for M.Tech. Mechanical Engineering students (2003-2016).

#### 3.5. Committees involved in:

Department level:

- Member, Department Academic Committee. (2011 onwards)
- Member, Department Development Committee. (2011 onwards)
- Member, Department BOS Committee. (2006 onwards)
- Member, Department Project Review Committee for PG. (2004-2016)

- Member, Department Syllabus Revision Committee for PG. (2011 onwards)
- Member, Department Syllabus Progression Committee for PG. (2011 onwards)
- Member, Department Accreditation/Autonomy Committee – NBA, NAAC, UGC, JNTUH. (2008 onwards)
- NBA Programme Coordinator of B.Tech. (ME), 2016
- Department Coordinator, NBA, 2015
- Incharge, PG CAD Laboratory. (2006 onwards)
- Department PG Course Coordinator for M.Tech. - Advanced Manufacturing Systems, Automation & CAD/CAM. (2003-2017)

Institute Level:

- Coordinator, Academics (2016 onwards)
- Member, Online Teaching and Learning Manual 2020
- Member, Mock Inspection Team, NBA 2019
- Coordinator, NAAC Criterion-I 2017 & 2018
- Member, Fact Finding Committee, VNRVJIET 2017
- Member, Faculty Selection Committee 2016
- Institute Coordinator, NBA, 2015
- Member, Institute Accreditation Committee – NBA, NAAC, JNTUH Autonomy & UGC Autonomy. (2008 onwards)

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

- 1.1 Conducted: 24  
1.2 Attended: 124

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

- 5.1. Invited Lectures: 12  
5.2. Articles/Chapters published in Books: 06  
5.3. Books published as single author or as editor: Nil  
5.4. Projects Guided:  
a) UG: 25  
b) PG: Major – 32; Mini – 38  
5.5. Research Interests:  
• Additive Manufacturing, Micromachining, Robotics & Automation.  
5.6. Ph.D. students: Not Applicable  
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	Insights on Surface Characterization of 3D Printed Polymeric Parts	Materials Today: Proceedings Journal	2214-7853 ISSN	Indexed in Scopus	International

		Vol. 62 (part 6), 2022, pp. 3837-3848			
2	Additive Manufacturing of A Human Mandible and Finite Element Analysis of Dental Implant for Prosthodontic Applications	Materials Today: Proceedings Journal, Vol. 45 (part 2), 2021, pp. 3028-3035	2214-7853 ISSN	Indexed in <b>Scopus</b>	International
3	Functional Testing and Evaluation of Additively Manufactured Hand Drill Body Prototype	Materials Today: Proceedings Journal, Vol. 45 (part 2), 2021, pp. 3585-3595	2214-7853 ISSN	Indexed in <b>Scopus</b>	International
4	Development of 3D Printed Orthotic Device for Flat Foot Problem	Materials Today: Proceedings Journal, Vol. 44, (Part 1), 2021, pp. 2435-2441	2214-7853 ISSN	Indexed in <b>Scopus</b>	International
5	Development of a 3D Printed Knee Protective Pad Prototype	Materials Today: Proceedings Journal, Vol. 44, (Part 1), 2021, pp. 2442-2446	2214-7853 ISSN	Indexed in <b>Scopus</b>	International
6	Fabrication and Testing of Quadcopter Prototype for Surveillance	International Journal of Mechanical and Production Engineering Research and Development, Special Issue, Jun	ISSN (P): 2249-6890; ISSN (E): 2249-8001	7.6197 (Indexed in <b>Scopus</b> & <b>Google Scholar</b> )	International

		2018, pp. 99-105			
7	Development of Flex Sensor Array to Identify Damage on Sheet Metal	International Journal of Engineering Science and Technology, Vol. 9, Issue10 October 2017, pp. 967-974	ISSN : 0975-5462	Indexed in <i>Google Scholar</i>	International
8	Modelling and Simulation of a Gear Housing Pattern made of ABS Material for FDM Based 3D Printing	International Journal of Engineering Science and Technology, Vol. 9, Issue 09S, September 2017, pp. 179-186	ISSN : 0975-5462	Indexed in <i>Google Scholar</i>	International
9	Design of A Quadruped Robot and its Inverse Kinematics	International Journal of Mechanical and Production Engineering Research and Development, Vol. 7, Issue 4, August 2017, pp. 241-252	ISSN (P): 2249-6890; ISSN (E): 2249-8001	7.6197 (Indexed in <i>Scopus &amp; Google Scholar</i> )	International
10	Automatic Monitoring and Controlling of Pressure using PLC and SCADA	International Journal of Innovative Research in Science, Engineering and Technology, Vol. 5, Issue 7, July 2016,	ISSN(Online) : 2319-8753	6.209 (Indexed in <i>Google Scholar &amp; Cross Ref</i> )	International

		pp. 13671-13677			
11	Importance and Utilization of 3D Printing in Various Applications	International Journal of Modern Engineering Research, Vol. 3, 2016, pp. 24-29	ISSN: 2249 6645	1.227 (Indexed in <i>Google Scholar</i> )	International
12	Design and Fabrication of an Automated Carousel Bottling System Controlled by Allen Bradley Software	International Journal of Modern Engineering Research, Vol. 2, 2016 pp. 101-106	ISSN: 2249 6645	1.227 (Indexed in <i>Google Scholar</i> )	International
13	Productivity Improvement in a Windows Manufacturing Layout Using Flexsim Simulation Software	International Journal of Research in Advent Technology, Vol. 3, No. 9, September 2015, pp. 86-90	ISSN: 2321-9637	5.153 (Indexed in <i>Google Scholar</i> )	International
14	Design of AGV with Mobile Communication	International Journal of Advances in Electronics and Computer Science Vol. 2, No. 5, Pg. 67-71, May 2015.	ISSN: 2393-2835	1.9 (Indexed in <i>Google Scholar</i> )	International
15	Parametric Optimization of Tool Wear Rate in Micro Drilling of Maraging Steel 300 alloy	REASON-A Technical Journal, Vol. XIII, Pg. 33-40, 2014.	ISSN: 2277-1654	Indexed in <i>Cross Ref</i>	National
16	Parametric study of microwave horn antenna for optimum surface finish and improving electrical	Global Journal of Mechanical	ISSN: 2249-3468	0.235	International

	performance	Engineering and Computational Science, Vol. 1, No. 4, Pg. 25-28, 2012			
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5.8. Papers presented at National / International Conferences:

S.No.	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	TLBO and JAYA: Insights into Novel Multi-Objective Optimization Techniques	4th International Conference on Innovative Design & Development Practices in Aerospace and Automotive Engineering (I-DAD 2020) at Vel Tech Chennai	International	February 24-26 2020
2	A State-of-the-Art Review on 3D Printed Orthotic Devices for Flat Feet Condition	4th International Conference on Innovative Design & Development Practices in Aerospace and Automotive Engineering (I-DAD 2020) at Vel Tech Chennai	International	February 24-26 2020
3	A Contemporary Review on Knee Injuries and Protective Pads	4th International Conference on Innovative Design & Development Practices in Aerospace and Automotive Engineering (I-DAD 2020) at Vel Tech Chennai	International	February 24-26 2020
4	Fabrication and Testing of a Quadcopter	4th International Conference on Emerging Trends in Mechanical Sciences (ICEMS 2018)	International	June 2018
5	Pulse Parameter Characterization in Microdrilling of Maraging	147 <sup>th</sup> TMS Annual Meeting & Exhibition (TMS 2018),	International	March 11-15, 2018

	Steel 300 Alloy	Phoenix, Arizona, USA		
6	Tensile Testing and Evaluation of 3D Printed PLA Specimens as per ASTM D638 Type-IV Standard	3 <sup>rd</sup> International Conference on Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (IDAD 2018), Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science & Technology Chennai	International	February 22-24, 2018
7	Relative Studies on ASTM D638 Type-IV Specimens 3D Printed using ABS Material	6 <sup>th</sup> International & 27 <sup>th</sup> All India Manufacturing Technology, Design and Research Conference (AIMTDR -2016) College of Engineering, Pune, Maharashtra	International	December 16-18, 2016
8	Assessment of RP Technologies for Metal Casting and its Applications	National Conference on Innovative Trends in Mechanical & Automobile Engineering 2016, MVSREC Hyderabad	National	February 11-12, 2016
9	Design and development of a Quadcopter for Surveillance"	National Conference on Innovative Trends in Mechanical & Automobile Engineering 2016, MVSREC Hyderabad	National	February 11-12, 2016
10	Design and Fabrication of an Automated Carousel Bottling System Controlled by Allen Bradley Software	National Conference on Developments Advances & Trends in Engineering Sciences (NCDATES 2016), CMR EC Hyderabad	National	January 8-9, 2016
11	Importance and Utilization of 3D Printing in Various Applications	National Conference on Developments Advances & Trends in Engineering	National	January 8-9, 2016



		Sciences (NCDATES 2016), CMR EC Hyderabad		
12	Development of an Automatic Monitoring & Control System for the Objects on the Conveyor Belt	IEEE International Conference on Man and Machine Interface MAMI 2015, CVRCE Bhubaneshwar	International	December 17-19, 2015
13	Modeling of Human Humerus Bone for 3D Printing	COPEN 9 International Conference on Precision, Meso, Micro and Nano Engineering, IIT Bombay.	International	December 10-12, 2015
14	Investigating the effect of machining parameters in Microdrilling of Titanium Grade 19 alloy	ASME International Mechanical Engineering Congress & Exposition (IMECE 2015), Houston, Texas, USA	International	November 13-19, 2015
15	Design of AGV with Mobile Communication	22 <sup>nd</sup> IRF Conference, Pune, India	International	March 22, 2015
16	An Overview of Additive Manufacturing and its Application in Surgical Implants	International Conference on Additive Manufacturing & 3D Printing (ICAM3D 2015) Hotel Hilton, Chennai, India	International	February 06-07, 2015
17	Fused Deposition Modeling - Insights	International Conference on Advances in Design and Manufacturing (ICAD&M'14), NIT Tiruchirappalli, India	International	December 05-07, 2014
18	Investigating the effect of machining parameters in Microdrilling of Titanium Grade 19 alloy	ASME International Mechanical Engineering Congress & Exposition (IMECE 2013), San Diego, California, USA	International	November 15-21, 2013
19	Effect of process parameters on Tool Wear Rate in Micro Drilling of Maraging Steel 300 Alloy	4 International & 25 All India Manufacturing Technology Design & Research 2012 (AIMTDR 2012),	International	December 14-16, 2012

		Jadavpur University, Kolkata, India		
20	Evaluation of Electrode Wear rate in Micro drilling of Titanium 19 grade alloy using Taguchi method	International Conference on Materials Processing and Characterization (ICMPC 2012), GRIET Hyderabad, India	International	March 08-10, 2012
21	Parameter Optimization for improving the electrical performance of Microwave Horn Antenna using Taguchi Method	International Conference Recent Advances in Materials Processing Technology, National Engineering College, Kovilpatti, Tamil Nadu, India	International	February 25-27, 2009
22	Optimizing the Machining Parameters for the Development of Microwave Horn Antenna Using Taguchi's Robust Design Methodology	International Conference on Mechanical and Manufacturing Engineering 2008, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia	International	May 21-23, 2008
23	Productivity Improvement through Optimization of Layout using Flexsim Simulation Software	5 <sup>th</sup> National Conference on Advances in Mechanical Engineering (AIM 2015), Vasavi College of Engineering, Hyderabad	National	May 01-02, 2015
24	Design and development of Control Unit of an Automated Guided Vehicle	Recent Innovations in Mechanical Engineering (RIME 2014), MVSREC, Hyderabad	National	November 21-22, 2014
25	Productivity Improvement in a Hydraulic Pump Manufacturing Layout	Recent Innovations in Mechanical Engineering (RIME 2014), MVSREC, Hyderabad	National	November 21-22, 2014

26	Application of Robots in Radioactive Environment	1 <sup>st</sup> National Conference on Robotics, Automation & Mechatronic (NCRAM 2014), JNTU, Hyderabad	National	March 12-13, 2014
27	Recent Advances in MicroEDM	National Conference on Recent Advances in Manufacturing Engineering & Technology (RAMET 2011), VNR VJMET, Hyderabad	National	January 10-11, 2011
28	Simulation in Robotics	National Conference on Recent Advances in Manufacturing Engineering & Technology (RAMET 2011), VNR VJMET, Hyderabad	National	January 10-11, 2011
29	Optimization of Cost using Statistical Process Control (SPC) : A Case Study	National Conference on Recent Advances in Manufacturing Engineering & Technology (RAMET 2011), VNR VJMET, Hyderabad	National	January 10-11, 2011
30	An Application of Six Sigma DMADV Methodology to improve life of Belt for Radiator Fan of 250 HP Engine in an Earth Moving Equipment, National Conference on Recent Advances in Manufacturing Engineering & Technology (RAMET 2011), VNR VJMET, Hyderabad, India, Jan. 10-11, 2011	National Conference on Recent Advances in Manufacturing Engineering & Technology (RAMET 2011), VNR VJMET, Hyderabad	National	January 10-11, 2011
31	Modeling And Core Cavity Preparation Of Side Engine Cover Of A Gear Box Casing Using Pro/E Software	National Conference on Advances in Mechanical Engineering (NCAME 2010), PVP Siddhartha College of Engineering, Vijayawada	National	December 18, 2010
32	A Review of EDM Micro Drilling Process	National Conference on Recent Trends in	National	February 25-26,

		Mechanical Engineering (TIME 2010), Chandigarh Engineering College, Mohali		2010
33	An Effect of Minimum Quantity Lubrication in Machining – A Review	National Conference on Sustainability & Social Comfort – Strategizing Design and Manufacturing (NCOSASC 2009), VNR VJIET, Hyderabad	National	January 19-20, 2009
34	Optimization of Process Parameters in Turning Process using Taguchi Design of Experiments	National Conference on Sustainability & Social Comfort – Strategizing Design and Manufacturing (NCOSASC 2009), VNR VJIET, Hyderabad	National	January 19-20, 2009
35	Application of Taguchi’s Robust Design Philosophy for achieving higher surface finish in High Speed Machining	National Conference on Advances in Manufacturing & Industrial Engineering (NCOAIMAIE 2007), VNR VJIET, Hyderabad	National	July 12-14, 2007
36	Carbon Nanotubes: A Review	National Conference on Advances in Manufacturing & Industrial Engineering (NCOAIMAIE 2007), VNR VJIET, Hyderabad	National	July 12-14, 2007
37	Optimization of machining parameters of High Speed Machining Operation using Taguchi methodology	National Level Technical Conference PRATIBHA 2004, GVP CE & T, Visakhapatnam	National	December 18, 2004
38	Optimization of Production Planning and Scheduling for Critical Products Like Gas Turbines	National Conference on Advanced Materials & Manufacturing Techniques 2004, JNTU, Hyderabad	National	March 8-9, 2004
39	Realization of Precision Aerospace Components by	The Aeronautical Society of India,	National	February 1-2, 2002

	High Speed Milling through Parameter Optimization for Better Surface Finish	National Conference on Advances in Aerospace Manufacturing NCAAM, Thiruvananthapuram		
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5.9. Sponsored research Projects: Nil

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
1	Automated Commando Training System	Greyhounds, A.P. State Police, Govt. of A.P	June 2008 to May 2009	Rs. 9.27 Lakh	Completed

**6. Awards / Honors received:**

- **Topper-Top 1% in Engineering Drawing and Computer Graphics** course conducted by NPTEL-SWAYAM during July - November 2021
- Acted as **Expert in AICTE Student Learning Assessment PARAKH** during 2021.
- Awarded **Primary Evaluator Certificate** by AICTE New Delhi for **exceptional contribution** in **AICTE Toycathon 2021** held during January-February 2021;
- Served as a “**Member of Technical Committee**” in the **National Conference on Ancient Indian Science Technology Engineering and Mathematics (AISTEM-2021)** held online during March 19-21 2021 at **NITTTR Kolkata**.
- Received “**Grant for Conducting ATAL FDP**” of Rs. 0.93 lakh from AICTE New Delhi towards organizing AICTE Training and Learning Academy (ATAL) Online FDP on “**3D Printing & Design**” during February 15-19, 2021 at **VNRVJIET, Hyderabad**.
- Received “**Appreciation from AICTE New Delhi**” for being part of **World Book of Record, London, UK** with regards to participation and organizing in 1000 AICTE Training And Learning (ATAL) Academy FDPs.
- Received “**Grant for Conducting E-Conference**” of Rs. 0.5 lakh from AICTE New Delhi towards organizing International Conference on Sustainable Development in Mechanical Engineering SDME 2020 during October 30-31, 2020 at **VNRVJIET, Hyderabad**.
- Received “**Travel Grant**” of Rs. 2.06 lakh from UGC New Delhi towards participating in the 147<sup>th</sup> TMS Annual Meeting & Exhibition (TMS 2018) during March 11-15, 2018 at **Phoenix, Arizona, USA**.
- Received “**Travel Grant**” of Rs. 1.93 lakh from UGC New Delhi towards participating in the ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE) during November 13-19, 2015 at **Houston, Texas, USA**.
- Received “**Best Paper Award**” for paper titled “**PLC Based Design and Fabrication of a Carousel Automated Bottling System Controlled by Allen Bradley**” in the National

Conference on Automation, Robotics and Mechatronic Systems (NCARMS 2016) during March 25-26, 2016 at **Anna University, Chennai**.

- **Reviewer** of “3D Printing and Additive Manufacturing” published by Scientific.Net.
- **Reviewer** of “Advanced Materials Research” published by Mary Ann Liebert, Inc.
- **Reviewer** of “Materials Today: Proceedings” published by Elsevier.
- **Reviewer** of “Machining Science and Technology” published by Taylor & Francis.
- **Reviewer** of “Materials and Manufacturing Processes” published by Taylor & Francis.
- **Reviewer** of “The Journal of Institution of Engineers (India): Series C” published by Springer.
- **Reviewer** of “The International Journal of Industrial Engineering” [IJETAP] published by University of Cincinnati, USA.
- **Reviewer** of “Advances in Science, Technology and Engineering Systems Journal (ASTESJ)” published by ASTES, UK.
- **Reviewer** of “Journal of Engineering Research and Sciences” published by
- **Reviewer** of “SERB Funding Proposal”.
- **Reviewer** of “International Journal of Advance Research and Innovative Ideas in Education”.
- Received “**Certificate of Appreciation**” for paper presentation in International Conference on Additive Manufacturing & 3D Printing (ICAM3D 2015) organized by ESCI Hyderabad and Vel Tech University Chennai during February 06-07 2015 at **Hotel Hilton Chennai**.
- Received “**Travel Grant**” of Rs. 1.68 lakh from UGC New Delhi towards participating in the ASME 2013 International Mechanical Engineering Congress & Exposition (IMECE) during November 15-21, 2013 at **San Diego, California, USA**.
- Secured “**Second Prize**” for paper presentation in national level technical conference “Pratibha 2004” during December 2004 at **GVP CE & T, Vishakhapatnam**.

## 7. Motto:

- Work smarter, not harder
- Always strive to be happy