

## DITTAKAVI TARUN

Department : Mechanical Engineering  
College : Seshadri Rao Gudlavalleru Engineering College  
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### ACADEMIC QUALIFICATIONS:

- ❖ Ph.D. - Manufacturing Engineering (Pursuing, registered in Dec, 2018)
- ❖ M. Tech. - Mechatronics Engineering
- ❖ B. Tech. - Mechanical Engineering

### SPECIALIZATION:

- ❖ Manufacturing Engineering
- ❖ Mechatronics Engineering

### PROFESSIONAL EXPERIENCE:

Designation	University/College	Period
Asst. Professor	Gudlavalleru Engineering College	01.06.2015 to till date

### TECHNICAL SKILLS:

**Design Software Tools** : SOLIDWORKS, NX – CAD, CATIA  
**Analysis Software Tools** : ANSYS, Hyper Mesh, MATLAB

### SUBJECTS HANDLED:

- ❖ Engineering Drawing
- ❖ Computer Aided Engineering Drawing
- ❖ CAD/CAM
- ❖ Robotics
- ❖ 3D Printing Technologies
- ❖ Measurements & Mechatronics
- ❖ Materials Engineering
- ❖ Manufacturing Science

## LABORATORIES HANDLED:

- ❖ Engineering Workshop
- ❖ Simulation Lab
- ❖ Computational Methods for Engineers Lab
- ❖ Computer Aided Engineering Analysis Lab
- ❖ Instrumentation Lab
- ❖ Materials Lab
- ❖ Modeling & Analysis Lab ((PG Lab)
- ❖ Manufacturing Processes Lab

## AREAS OF INTERESTS:

- ❖ Exoskeletons, Prosthetics (Bio-Mechanics)
- ❖ Robotics and Mechatronics
- ❖ Composite Materials
- ❖ Additive Manufacturing

## PROJECTS GUIDED:

Ph.D.	Post-Graduation	Under Graduation
Nil	Nil	12

## GRANTS FETCHED:

- ❖ Received a grant of **Rs. 1.10 Lakhs** for the project titled “**Selection of Natural Fiber Reinforced Composite Material for the application of Wind Turbine Blade**” under In – House R & D Scheme, Gudlavalleru Engineering College, Gudlavalleru in the academic year 2018 - 19.

## PUBLICATIONS

### JOURNALS: 09

- ❖ Published a paper on “**Design and Analysis of Composite Leaf Spring**”, Journal of Manufacturing Engineering, Vol. 15, Issue 03 (2020), ISSN: 0973-6867, pp: 076 – 083.
- ❖ Published a paper on “**Selection of Natural Fiber Reinforced Composites for Wind Turbine Blades**”, Strad Research Journal, Vol. 10, Issue 10 (2020), ISSN: 0039 – 2049, doi: <https://doi.org/10.37896/sr7.10/013> (UGC Care List 2)
- ❖ Published a paper on “**Evaluation of Coefficient of Thermal Expansion of Zirconium by using Dilatometer & ANSYS**”, Advanced Materials Research, Vol. 1148 (22<sup>nd</sup> June 2018),

ISSN: 1662 – 8985, pp: 128-135.

- ❖ Published a paper on “**Stress Analysis on a Chairless Chair**”, International Journal of Theoretical and Applied Mechanics, Volume 12, Issue 4 (2017), ISSN: 0973-6085, pp: 699-708. (2 Citations)
- ❖ Published a paper on, “**Design and Analysis of Lower Limb Exoskeleton**”, International Journal for Innovative Research in Science and Technology, Volume 3, Issue 12, May 2017, ISSN: 2349-6010, pp: 61-67 (2 Citations)
- ❖ Published a paper on, “**Control Strategy for Prosthetic Leg Using Smart Device**”, International Journal on Cybernetics and Informatics, Volume: 4, Issue: 2, pp: 83-88
- ❖ Published a paper on, “**Kinematic Analysis for Prosthetic Leg Using Virtual Interface**”, International Journal of Applied Engineering Research, Vol: 10, No. 24, April 2015, pp: 20996-20999. (2 Citations)
- ❖ Published a paper on, “**Estimation of Body Segment Weights for Prosthetic Legs Suitable to Indian Amputees**”, International Journal of Applied Engineering Research, Volume: 9 - Issue 20 (2014), pp. 7453-7462. (Scopus Indexed & 4 Citations)
- ❖ Published a paper on “**Flexible Manufacturing System Scheduling by using a Genetic Algorithm**”, International Journal of Current Research and Review, Volume: 4 - Issue 20 (2014), pp. 142-151.

#### **CONFERENCES: 03**

- ❖ Presented a paper on, “**Prediction of Motion for a Trans femoral Prosthetic Device using Neural Networks**”, International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences, February 2015, pp: 766-769
- ❖ Presented a paper on, “**Estimation of Joint Positions and Velocities for the Robotic Prosthetic Leg**”, International Conference on Advances in Design and Manufacturing (ICAD&M’ 2014) December 2014, pp.1521-1524.
- ❖ Presented a paper on “**Kinematic Analysis for Prosthesis Leg using Virtual Interface**”, International Conference on Advances in Design and Manufacturing (ICAD&M’ 2014) December 2014, pp. 72-75.

#### **LIST OF WORKSHOPS ORGANIZED: 11**

- ❖ Two Day Workshop on “**Industrial Robotics**” organized during 2<sup>nd</sup> – 3<sup>rd</sup> November 2022, by Department of Mechanical Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.

- ❖ Two Day Skill Development Program on **“Robotics”** organized during 14<sup>th</sup> – 15<sup>th</sup> October 2022, by Department of Mechanical Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.
- ❖ Two Day Hands on Training on **“Robot Programming using IRc Software”** organized during 16<sup>th</sup> – 17<sup>th</sup> September 2022, by Department of Mechanical Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.
- ❖ TECHTALK on **“5G Technology, Automation & Career Connect”** organized on 17<sup>th</sup> September 2022, by Department of Mechanical Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.
- ❖ One Day Workshop on **“Pneumatic Technology in Industrial Automation – FESTO Expotainer”** organized on 24<sup>th</sup> August 2022, by Department of Mechanical Engineering, Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru.
- ❖ Two Week Skill Development Program for faculty on **“CATIA”** during 18<sup>th</sup> to 30<sup>th</sup> July 2022 organized by Department of Mechanical Engineering in Seshadri Rao Gudlavalleru Engineering College.
- ❖ One Week Online Faculty Development Program on **“Recent Trends in Mechanical Engineering”** organized during 15<sup>th</sup> – 20<sup>th</sup> June 2020 by Department of Mechanical Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru.
- ❖ Two Day Student Development Program on **“ARDUINO”** organized during 24<sup>th</sup> – 25<sup>th</sup> February 2020 by Department of Mechanical Engineering in Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru.
- ❖ Two Day Faculty Development Program on **“MATLAB and Its Applications”** organized during 8<sup>th</sup> – 9<sup>th</sup> February 2018 by Department of Mechanical Engineering in Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru.
- ❖ One-week Skill Development Program for students on **"ProgeCAD"** organized during 17<sup>th</sup> to 23<sup>rd</sup> February 2017 by Department of Mechanical Engineering in association with ASME, IE(I), ISTE and Mechanical Engineering Association, in Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ One-week Student Training Program on **"SOLIDWORKS"** organized during 11<sup>th</sup> to 17<sup>th</sup> July 2016 by Department of Mechanical Engineering in association with ASME, IE(I), ISTE and Mechanical Engineering Association, in Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.

## **LIST OF WORKSHOPS / SEMINARS ATTENDED: 27**

- ❖ Attended for a One Week Faculty Development Program (Online) titled **“Role of 3D Printing in Digital Manufacturing”** organized by Centre for Research in Digital Manufacturing (CRDM), Department of Mechanical Engineering, School of Engineering, Anurag University, in collaboration with Centre for Product Design, Development and Additive Manufacturing (CPPDAM), Osmania University, during 03<sup>rd</sup> – 07<sup>th</sup> July 2023.
- ❖ Attended for a Five Day Faculty Development Program on **“Recent Advances in Composite Materials – RACM 2023”** organized by Department of Mechanical Engineering, National Institute of Technology, Puducherry, during 27<sup>th</sup> – 31<sup>st</sup> March 2023.
- ❖ Attended for a AICTE ATAL sponsored Two Weeks (Hybrid Mode) Faculty Development Program on **“Applications of IoT in Mechanical Engineering”** organized by Department of Mechanical Engineering, Prasad V Potluri Siddartha Institute of Technology, Vijayawada, during 14<sup>th</sup> – 19<sup>th</sup> November 2022 and 21<sup>st</sup> – 25<sup>th</sup> November 2022.
- ❖ Attended for a AICTE sponsored One Week (online) Short Term Training Program – 3 on **“Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing”** organized by Department of Mechanical Engineering, Kallam Haranadha Reddy Institute of Technology, Guntur, during 26<sup>th</sup> – 31<sup>st</sup> July 2021.
- ❖ Attended for a 5 Days Online Faculty Development Program on **“Sheet Metal Design using SolidWorks”** organized by ICT Academy during 25<sup>th</sup> – 30<sup>th</sup> January 2021.
- ❖ Attended for a 5 Days Online Faculty Development Program on **“Essentials of SolidEdge”** organized by ICT Academy during 14<sup>th</sup> – 18<sup>th</sup> December 2020.
- ❖ Attended for a Two week AICTE – STTP Online Faculty Development Program on **“Research Methodology, Design of Experiments for Engineers & Researchers”**, organized by RVR & JC College of Engineering during 07<sup>th</sup> – 09<sup>th</sup> December 2020.
- ❖ Attended for a One week Online Faculty Development Program on **“3D Printing & Design”** organized by Indian Institute of Information Technology Design & Manufacturing, Kurnool and AICTE Training and Learning Academy (ATAL) during 19<sup>th</sup> – 23<sup>rd</sup> October 2020.
- ❖ Attended for a One week Online Faculty Development Program on **“Cyber – Physical Production Systems”** organized by National Institute of Technology Andhra Pradesh and AICTE Training and Learning Academy (ATAL) during 21<sup>st</sup> – 25<sup>th</sup> September 2020.
- ❖ Attended for One day online Webinar on **“Drafting and Publication of Research Articles in Peer Reviewed Journals”**, organized by Sri. Mittapalli College of Engineering, Tummalapalem, Guntur, held on 16th May 2020.

- ❖ Attended for a Five Day online FDP on **“IPR Awareness and Patent Prosecution”**, organized by Department of Information Technology, CMR Engineering College, Hyderabad, during 6th – 10th May 2020.
- ❖ Attended for One day online Webinar on **“3D Printing Applications in Fighting with COVID – 19”**, organized by Department of Mechanical Engineering, Sri Sai Ram Institute of Technology, Chennai, held on 9th May 2020.
- ❖ Attended for Five days Online Faculty Development Programme on **“ARDUINO”** organized by Sathyabama Institute of Science and Technology, Chennai in association with IIT Bombay Spoken Tutorial – Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), during 4th – 8th May 2020.
- ❖ Attended for One day online Webinar on **“How to Get Published in Scientific Journal: From Research to Publication”**, hosted by MHRD – Institute Innovation Council, Sri Sai Ram Institute of Technology, Chennai, held on 27th April 2020.
- ❖ Attended for One Week Faculty Development Program on **“Applied Robotics Control Labs (ARC 2.0)”** organized by German Center for Advanced Engineering and Management Studies UG and APS GmbH – European Center for Mechatronics, as a part of “Indo European Skilling Centers for Mechatronics and Industrial Robotics” in Andhra Pradesh from 5<sup>th</sup> – 12<sup>th</sup> August 2019, at VIT – AP, Amaravati, Andhra Pradesh.
- ❖ Attended for Ten Days Faculty Development Program on **“Applied Robotics Control Labs (ARC 1.0)”** organized by APS GmbH European Center for Mechatronics, as a part of “Indo European Skilling Centers for Mechatronics and Industrial Robotics” in Andhra Pradesh from 18<sup>th</sup> – 29<sup>th</sup> May 2019 at Aachen, Germany.
- ❖ Two Day National Workshop on **“Research Methodology”**, organized by IIITD&M IEEE Student branch, Kancheepuram, Chennai during 15<sup>th</sup> – 16<sup>th</sup> March 2019.
- ❖ Two day Faculty Development Program on **“Advances in Manufacturing”** organized by Department of Mechanical Engineering during 16<sup>th</sup> – 17<sup>th</sup> November 2018 at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru.
- ❖ IE (I) APSC sponsored One day workshop on **“Characterisation of Metal Matrix Composites”** organized by Department of Mechanical Engineering, on 11<sup>th</sup> August 2018 at Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ AICTE – ISTE sponsored One Week Refresher course on **“Computational Fluid Dynamics”** organized by Department of Mechanical Engineering during 18<sup>th</sup> – 23<sup>rd</sup> June 2018 at Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ One Week Faculty Development Program on **“CNC Turning Programming”** organized by

APSSDC – Siemens Project during 23<sup>rd</sup> April to 27<sup>th</sup> April 2018 at APSSDC – SIEMENS Centre of Excellence, VR Siddartha Engineering College, Vijayawada.

- ❖ Two Day training on "**MATLAB®**, **Simulink and Related Tool Boxes**" organized by Capricot Technologies Pvt. Ltd. and Department of Mechanical Engineering during 8<sup>th</sup>–9<sup>th</sup> February, 2018, at Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ One Day Workshop on "**Outcome Based Education**" organized by Department of Mechanical Engineering on 9<sup>th</sup> December, 2017, at Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ One week Refresher Course on "**Finite Element Analysis**" organized by Department of Mechanical Engineering and Civil Engineering during 19<sup>th</sup>–24<sup>th</sup> June, 2017, at Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ Two Day Faculty Development Program on "**Robotics and Automation**" organized by Department of Electrical and Electronics Engineering during 29<sup>th</sup> – 30<sup>th</sup> November, 2016, at Lakkireddy Balireddy College of Engineering, Mylavaram-521230, Krishna Dist., A.P.
- ❖ One week FDP on "**MATLAB Applications in Mechanical Engineering**" organized by Department of Mechanical Engineering during 7<sup>th</sup>–11<sup>th</sup> September, 2015, Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ One-week FDP on "**Training Program on ANSYS**" during 22<sup>nd</sup> to 27<sup>th</sup> June 2015 organized by Department of Mechanical Engineering and Civil Engineering, Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.

### **CERTIFICATIONS: 15**

- ❖ Completed 12 week online NPTEL certification program on "**Manufacturing Systems Technology I & II**", conducted by IIT Kanpur.
- ❖ Completed 12 week online NPTEL certification program on "**Engineering Drawing and Computer Graphics**" conducted by IIT Kharagpur.
- ❖ Completed on the course on "**Bulk Material Handling**", conducted by Capability Development, TATA Steel.
- ❖ Completed on the course on "**Desulphurisation**", conducted by Capability Development, TATA Steel.
- ❖ Completed on the course on "**Industry 4.0**", conducted by Capability Development, TATA Steel.
- ❖ Completed on the course on "**PLC**", conducted by Capability Development, TATA Steel.

- ❖ Completed on the course on **“Measuring Instrument”**, conducted by Capability Development, TATA Steel.
- ❖ Completed a certification program on **“Industrial Internet of Things (IIOT) and the IoT”** conducted by Udemy.
- ❖ Completed 8 Week online NPTEL certification program on **“Robotics”** conducted by IIT Kharagpur.
- ❖ Completed 8 Week certification program on **“Manufacturing of Composites”** conducted by IIT Kanpur.
- ❖ Completed 12 week online NPTEL certification program on **“Mechanics of Human Movement”** conducted by IIT Madras.
- ❖ Completed 8 week online NPTEL certification program on **“Design Practice II”** conducted by IIT Kanpur.
- ❖ Completed 8 week online NPTEL certification program on **“Introduction to Research”** conducted by IIT Madras.
- ❖ Completed 12 week online NPTEL certification program on **“Operations Management”** conducted IIT Roorkee.
- ❖ Completed 12 week online NPTEL certification program on **“Fundamentals of Manufacturing Processes”** conducted by IIT Roorkee.

#### **ACTING AS A EDITOR / REVIEWER: 02**

- ❖ Acting as a editor for book series titled **“Futuristic Trends in Robotics & Automation”**, IIP Proceedings
- ❖ Acting as a reviewer for **International Review of Mechanical Engineering (IREME)**, Praise Worthy Prize Publications, ISSN: 1970-8734

#### **GUEST LECTURES DELIVERED: 03**

- ❖ Two Week Skill Development Program for faculty on **“CATIA”** during 18<sup>th</sup> to 30<sup>th</sup> July 2022 organized by Department of Mechanical Engineering in Seshadri Rao Gudlavalleru Engineering College.
- ❖ One-week Skill Development Program for students on **"ProgeCAD"** during 17<sup>th</sup> to 23<sup>rd</sup> February 2017 organized by Department of Mechanical Engineering in association with ASME, IE(I), ISTE and Mechanical Engineering Association, in Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.
- ❖ Two Day Faculty Development Program on **"Training on ProgeCAD"** during 6th to 7th



December 2017 organized by Department of Mechanical Engineering, in Gudlavalleru Engineering College, SeshadriRao Knowledge Village, Gudlavalleru.

**MEMBERSHIP IN PROFESSIONAL BODIES:**

- ❖ IE (I) – Associate Member (AMIE) (AM1843160)

**Departmental Responsibilities Handled (Past Years):**

- ❖ Department Exam Co-Cordinator
- ❖ Department Website Coordinator
- ❖ MECATRON Coordinator (Departmental Magazine)
- ❖ Member – NBA Criteria 4
- ❖ ARC Lab Faculty In-charge
- ❖ CAD/CAM Lab Faculty In-charge
- ❖ CAM Lab Faculty In-charge

**Departmental Responsibilities Handling (Present Academic Year):**

- ❖ Coordinator – Department Time Tables
- ❖ Member – NBA Criteria 4
- ❖ ARC & CAM Lab Faculty In-charge

(D. Tarun)  
Assistant Professor