



Dr.Muddu Allaparthi

PERSONAL DATA

Date of Birth: 19 June 1988
Address: 1-61, Palaparru (P), Pedanandipadu (M), Guntur (D), AP-522235
Phone: +91 9439557487
Languages: Telugu, Hindi, English.
Email: muddu.alaparthi@gmail.com , allaparthimuddu@rvrjc.ac.in.
Interests: Teaching, Problem solving, engaging in family care and welfare.
Hobbies: Playing games, visiting historical and sacred places in India
Nationality: Indian
Religion: Hindu
Marital status: Married

EDUCATION

- ❖ **PhD in Industrial Design (2018)**, National Institute of Technology Rourkela, Odisha, India.
Thesis Title: “Three-Dimensional Finite Element Analysis of Conventional and Ultrasonic Vibration Assisted Micro-Drilling on PCB”.
- ❖ **M.E. in Tool Design (2012)**, University College of Engineering & Central Institute of Tool Design (CITD), Osmania University, Hyderabad
- ❖ **B.Tech. in Mechanical Engineering (2009)**, Loyola Institute of Technology & Management, (Sattenapalli) Guntur, Affiliated to JNTU Kakinada. Andhra Pradesh.
- ❖ **Intermediate (2005)**, GRC. Jr. College (Martur), Affiliated to Board of Intermediate Education, AP.
- ❖ **SSC (10th) (2003)**, at Bhashyam High School (Guntur), Affiliated to Board of Secondary Education, AP.

WORK EXPERIENCE

Assistant Professor : 4 Years and 5 Months: (01 November 2019-Till date) in Department of Mechanical Engineering, RVR & JC College of Engineering, NAAC (A+), Chowdavaram, Guntur, Andhra Pradesh-522019

Subjects Handled:

- ❖ Flexible Manufacturing Systems and Group Technology,
- ❖ Design Thinking and Product Innovation,
- ❖ Workshop Technology,
- ❖ Economics for Engineers and
- ❖ Industrial Management and Entrepreneurship

Laboratories Handling:

- ❖ Manufacturing Lab,
- ❖ Workshop Lab and
- ❖ Modelling Lab.
- ❖ Automation & CAM Lab

Departmental Works:

- Handled NAAC and NBA Criteria Works like Course-file preparation and checking.
- Organized technical workshops, seminars, industrial visits and expert lectures for overall development of the Department etc.

Administrative Works:

- ❖ **Co-Convenor** for RVR & JC Boys Hostels I & II.
- ❖ **Co-Convenor** for Lift Maintenance Committee (RVR&JC)
- ❖ Member: Skills development committee in the department
- ❖ Member: Institution Innovation Council (IIC)-RVR&JC
- ❖ Member: Implementation of Safety & Security measures in the campus

Teaching Assistance:

- Department of Industrial Design, NIT Rourkela
- Subject: **Rapid Prototyping and Reverse Engineering**
- Course assisted for: **UG and PG (2014-16)**

Laboratory Assistance:

- **CAD LAB**, Dept. of Industrial Design, NIT Rourkela.
- **Rapid Prototyping and Reverse Engineering LAB**,
- **CATIA V-19, 20, Ansys-15-16-17.**
- Course assisted for: **UG and PG (2014-16)**

Preparing lab manuals, clarifying doubts on various theoretical and technical problems related to subject as well as laboratory equipment.

Design Engineer Trainee at:

Sheet Metal Fixtures Design (18 August 2010 - 15 June 2011), **TATA MOTORS, PUNE (B09033)**.

- Design and drafting for fixture assemblies like templates, brackets, rest blocks for vehicles like TATA SAFARI Strome, project MERLIN, Project Y1, etc.
- Checking of Fixture Layout Drawings.
- Monitoring of Technical Submittals and Approval.
- Costing and Estimation

PROFESSIONAL MEMBERSHIP

- ❖ American Society for Metals (**ASM**) International Eastern India Raigarh Chapter, Member ID: **C-06127117**.
- ❖ International Association of Engineers (**IAENG**), Member ID: **315697**.

REVIEWER

- ❖ **Primary Evaluator** for “Toycathon 2021” organized by AICTE and Ministry of Education’s INNOVATION CELL (Government of India).
- ❖ **Reviewer** for “International Conference on Intelligent Manufacturing an Energy Sustainability (**ICIMES2020**)” organized by the Department of Mechanical Engineering at Malla Reddy College of Engineering & Technology (MRCET) (Autonomous), Hyderabad, India during August 21-22, 2020.

PATENTS

- ❖ Dr. V. Ramakoteswara Rao, Dr. Mohammad Hasheer Shaik, **Dr. A. Muddu**, Sri P. Siddhartha, and Ms. Sneha H. Dhoria, filed a patent on “**Agricultural Robot**” on 09-12-2021 at IPR India. (Application No:355374-001)
- ❖ Dr. N. Govind, Dr. K. Praveen Kumar, Dr. Radhika Sajja, D. Swapna, K. Lakshmi Chaitanya, M. Vijaya, Mohammad Hasheer Shaik, Kondala Rao Dasari, Kurra Hari Prasad, T.N.S Rama Krishna, **Dr. A. Muddu**, filed a patent on “**CTS-Intelligent Manufacturing Process: Computer Intelligent Manufacturing Process And Testing Systems (Aid Physical Three Dimensional Object)**” on 04-12-2020 at IPR India. (Application No:202041051207 A)

ONGOING PROJECTS

Projects having Collaboration with Industry (Industrial Research Project (IRP)) – 1:

- ❖ Received a grant of worth Rs. 8,00,000/- for the industrial project entitled “**Influence of Heat Treatment on the Characterization of Alumina Reinforced AZ91 Mg Alloy Metal Matrix Composites**” from Virinchi Infrastructure Pvt. Ltd., as Co-Investigator during period 2021-2022.

PUBLICATIONS

- ❖ Purushottam Karthik Janaswamy; C.M. Raguraman; C. Tara Sasanka; **Muddu Allaparthi**. "Maximization of Power Through Metaheuristic Technique in the Design of a Jacketed Vessel Mixing Solid-Liquid Phases". *Iranian Journal of Chemistry and Chemical Engineering*, 42, 10, 2023, 3537-3545. doi: 10.30492/ijcce.2023.1971136.5666
- ❖ **Allaparthi, M.**, Khan, M. R., & Teja, B. (2018). Three-dimensional finite element dynamic analysis for micro-drilling of multi-layered printed circuit board. *Materials Today: Proceedings*, 5(2), 7019-7028. <https://doi.org/10.1016/j.matpr.2017.11.365>.

BOOK CHAPTERS

- ❖ Chary, T. R. G., **Allaparthi, M.**, Dusa, S., Suryapet, P., & Tarun, D. (2023, June). Properties, Applications, Defects, and Failures of Magnetorheological Fluids. In *International Conference on Intelligent Manufacturing and Energy Sustainability* (pp. 517-528). Singapore: Springer Nature Singapore. DOI: [10.1007/978-981-99-6774-2_46](https://doi.org/10.1007/978-981-99-6774-2_46), ISSN: [2190-3018](https://www.springer.com/9789819967742)
- ❖ Suryapet, P., **Allaparthi, M.**, & Chary, T. R. G. (2023, June). Properties, Preparation, Applications and Handling of Aerogels. In *International Conference on Intelligent Manufacturing and Energy Sustainability* (pp. 529-540). Singapore: Springer Nature Singapore. DOI: [10.1007/978-981-99-6774-2_47](https://doi.org/10.1007/978-981-99-6774-2_47), ISSN: [2190-3026](https://www.springer.com/9789819967742)
- ❖ **Allaparthi Muddu**, Khan Mohammed Rajik & A. Shyamnarayan (2017), “FE Modal and Harmonic Analysis of Micro Drill with Ultrasonic Horn”, In: Silva L. (eds) *Materials Design and Applications. Advanced Structured Materials*, vol 65, pp. 281-293, Springer, Cham 2017, DOI [10.1007/978-3-319-50784-2_21](https://doi.org/10.1007/978-3-319-50784-2_21), ISBN 978-3-319-50783-5.

CONFERENCES (INTERNATIONAL / NATIONAL)

- ❖ **Allaparthi Muddu**, Khan Mohammed Rajik & Brahma Teja, “Three-Dimensional Finite element dynamic analysis for micro drilling of multi-layer printed circuit board material”, International Conference on Emerging Trends in Materials & Manufacturing Engineering (iMME17), NIT, Tiruchirappalli, TN, India, March 10-12, 2017.
- ❖ **Muddu Allaparthi** attended and presented poster titled “Finite Element Analysis and Experimentations on Ultrasonic Vibration Assisted Micro-Drilling of Multi-Layer Material Sheets” at Research Scholars Week-2017, NIT Rourkela.
- ❖ **Allaparthi Muddu**, Khan Mohammed Rajik & A. Shyamnarayan, “FE Modal and Harmonic Analysis of Micro Drill with Ultrasonic Horn”, The 1st International Conference on Materials Design and Applications (MDA 2016), Porto, Portugal, 30 June - 1 July 2016, Published in Advanced Structured Materials 65, pp. 281-293.
- ❖ **Allaparthi Muddu** and Khan Mohammed Rajik, “Recent Advances in Burr Height Minimization in Micro-Machining”, Proceedings of the 5th International and 26th All India Manufacturing Technology, Design & Research Conference – 26thAIMTDR, IIT Guwahati, India, December 12-14, 2014, pp.386-1-6.
- ❖ **Muddu. A**, Gowtham P, (2008) attended and presented technical paper on “Recent trends in Rapid prototyping Technologies” at VITS Technofest-2008, A national level students technical paper presentation Contest, PBR Visvodaya Institute of Technology and Science, Kavali, Nellore, AP.

AWARDS ACHIEVED

- ❖ Awarded **Best Technical Paper** for the research paper “Three-Dimensional Finite element dynamic analysis for micro drilling of multi-layer printed circuit board material” presented in International Conference on Emerging Trends in Materials & Manufacturing Engineering (iMME17), NIT Tiruchirappalli, Tamil Nadu, India, March 10- 12, 2017

GUEST LECTURE DELIVERED

- ❖ Guest lecture delivered on “**Integrating Design Thinking and Critical Thinking for Innovation**” Organized by RVR & JC College of Engineering, Guntur, during 18th & 19th January, 2024.

FACULTY DEVELOPMENT PROGRAM (FDP), GUEST LECTURES ORGANIZED

- ❖ Organized and served as a **Co-Coordinator** for AICTE Two-week online Faculty Development Program on **“Research Methodology, Design of Experiments for Engineers and Researchers”** at Department of Mechanical Engineering, RVR & JC College of Engineering, Guntur, from 7th -19th December, 2020
- ❖ Organized a Guest lecture on awareness on **“Solid Waste Management and Waste to Energy”** by **Sri. P. Ravi Shankar**, Deputy manager, Environmental Health and safety Jindal Urban Waste Management Guntur Ltd. for II year B.Tech students at RVR & JC College of Engineering, Guntur, on 12th September, 2022.

WORK SHOPS ATTENDED

- ❖ Attended **First DIC workshop on Product Design**, (supported by **MHRD**), Centre for Product Design and Manufacturing, from 21st July to 2nd August, 2014 at **Indian Institute of Science (IISc)**, Bangalore.
- ❖ Attended **“The Author Workshop”** organized by Elsevier and TEQIP sponsored workshop on Research Support e-Resources, Tools and Techniques and Scholarly Publishing (RSTSP-2016) conducted by NIT Rourkela in October 2016.
- ❖ Attended a Three Day online International Workshop on **Emerging Trends in Mechanical, Aerospace and Robotics Engineering (ETMARE-2021)** organized by School of Mechanical Engineering (SMEC) from July 7-9, 2021 at VIT Bhopal.

FACULTY DEVELOPMENT PROGRAMMES (FDPs) ATTENDED

- ❖ Attended a Five Day online FDP on **“The New Product Development Process”** Organized by Andhra Pradesh State Skill Development Corporation(APSSDC) in association with Dassault Systems, from 13th – 18th November, 2023, Andhra Pradesh.
- ❖ Attended a Five Days online workshop on **“Vehicular Vibrations Control with Modern Suspension System”** organized by Department of Mechanical Engineering, NIT Surathkal, Karnataka, from 21st -25th August, 2023.
- ❖ Attended a Two days program of **“Induction Training for Young Faculty”** organised by Indian Society of Technical Education (ISTE) chapter RVR & JC College of Engineering on 26 & 27 July, 2023.
- ❖ Attended a Five Days Online Faculty Development Program (FDP) on **“Thermal Science and Materials Engineering (TSME)”** organized by Department of

Mechanical Engineering, Srinivasa Ramanujan Institute of Technology (Autonomous), Ananthapuramu, from 7th-11th Nov 2022.

- ❖ Attended a Five Days online FDP on *“Current Trends and Research in Civil Engineering”* Organized by Department of Civil Engineering, Maturi Venkata Subba Rao Engineering College (A) from 26-30 September, 2022, at Hyderabad.
- ❖ Attended a IP Awareness/Training program under *“National Intellectual Property Awareness Mission”* Jointly Organized by Intellectual Property Office and MoE's Innovation Cell, India on August 11, 2022.
- ❖ Attended a one week FDP online/offline Programme on *“Investor Awareness Program - Financial Literacy for You (FLY)”* sponsored by SEBI (Securities and Exchange Board of India) & NISM (National Institute of Securities Markets) from 7th October 2021 to 7th July, 2022 Organized by Department of Mechanical Engineering, R.V.R. & J.C. College of Engineering (Autonomous), Guntur, A.P.
- ❖ Attended a Five Day online FDP on *“3D Printing and Design”* Organized by AICTE Training and Learning (ATAL) Academy from 29 November -3rd December, 2021 at College of Engineering, Pune.
- ❖ Attended a one week National level Intercollegiate online FDP on *“Outcome Based Education & Bloom’s Taxonomy”* organised by the Internal Quality Assurance Cell of Ramakrishna Mission Vivekananda Centenary College (Autonomous), Kolkata in association with IPSR solutions limited 08 November 2021 to 15 November 2021.
- ❖ Attended a Five Day online FDP on *“Emerging Technologies in Product Design & Development”* Organized by AICTE Training and Learning (ATAL) Academy from 14th to 18th June, 2021 at Government College Of Engineering, Chandrapur.
- ❖ Attended a Five Day online FDP on *“Design thinking in 3D Printing”* Organized by AICTE Training and Learning (ATAL) Academy from 7th -11th June, 2021 at Indian Institute of Technology (IIT BHU), Varanasi.
- ❖ Attended a Five Day online FDP on *“Systems Engineering”* Organized by Andhra Pradesh State Skill Development Corporation(APSSDC) in association with Dassault Systems, from 17th – 22nd May, 2021, Andhra Pradesh.
- ❖ Attended a Five Day online FDP on *“METALLURGICAL ASPECTS IN ADDITIVE MANUFACTURING”* Organized by Department of Metallurgical and Materials Engineering, from 19th – 23rd April, 2021 at NIT Andhra Pradesh, Tadepalligudem, Andhra Pradesh.
- ❖ Attended a Five Day online FDP on *“Design thinking on developmental projects related to Social and Rural Program”* Organized by AICTE Training and

Learning (ATAL) Academy from 17th to 21st October, 2020 at Indian Institute of Information Technology Design and Manufacturing Kurnool (IIITDMK).

- ❖ Attended a Five Day online FDP on “*DESIGN THINKING - Finite Element Analysis for Product Design*” Organized by AICTE Training And Learning (ATAL) Academy from 30th September to 04th October, 2020 at Veermata Jijabai Technological Institute (VJTI), Mumbai.
- ❖ Attended a Five Day Online FDP on “*RECENT ADVANCES IN PROCESS METALLURGY*” Organized by Department of Metallurgical Engineering, OP JINDAL UNIVERSITY, SoE in Association with ASM International USA-India Chapter and Indian Institute of Metals (IIM)-Raigarh Chapter, from July13-17, 2020.

SPORTS ACHIEVEMENT

- ❖ Bagged **First Position** in Inter Departmental Faculty **Volley Ball** contest from Mechanical Engineering Department held during Annual Sports Meet (2023-24)” Organized by RVR & JC CE in January 2024.
- ❖ Bagged **Second Position** in Athletics-Disc Throw contest from Mechanical Engineering Department held during Annual Sports Meet (2023-24)” Organized by RVR & JC CE in January 2024.
- ❖ Bagged **Third Position** in Athletics-Shot-put contest from Mechanical Engineering Department held during Annual Sports Meet (2023-24)” Organized by RVR & JC CE in January 2024.
- ❖ Participated as a team player in College Faculty Cricket and played for **CHANDUS’ Silver Cup Cricket Tournament for AP College Teachers**, held between Inter-State Engineering Colleges during February-2024.
- ❖ Participated as a team player in Inter Departmental Faculty **Volley Ball** contest from Mechanical Engineering Department and bagged **First Position**, during Annual Sports Meet (2022-23)” Organized by RVR & JC CE in February 2023.
- ❖ Participated as a team player in College Faculty Cricket and played for **CHANDUS’ Silver Cup Cricket Tournament for AP College Teachers**, held between Inter-State Engineering Colleges during January-2022.
- ❖ Participated in various sports competitions like **Shotput, Discus Throw** and **Running** held in RVR & JC CE annual Sports meet during February-2020.
- ❖ Participated as a team player in College Faculty Cricket and played for **CHANDUS’ Silver Cup Cricket Tournament for AP College Teachers**, held between Inter-State Engineering Colleges during January-2020.

- ❖ Participated as a team player in Inter Departmental Faculty **Volley Ball** contest from Mechanical Engineering Department and bagged **First Position**, during Annual Sports Meet (2019-20)" Organized by RVR & JC CE in February 2020.
- ❖ Bagged **Gold Medal** for Cricket in "*Intra-hall cricket competition-2017*" organized by SD hall of Residence, NIT Rourkela.
- ❖ Bagged **Silver medal** for Cricket in "*Champions Trophy-2K16*", Organized by SAC, NIT Rourkela.
- ❖ Bagged **Gold medal** for Volley ball in "*Intra-Hall Sports Meet-2016*", Organized by VS Hall of residence, NIT Rourkela
- ❖ Bagged **Gold medal** for cricket in "*Intra-Hall Sports Meet-2016*", Organized by VS Hall of residence, NIT Rourkela.
- ❖ Bagged **Silver medal** for kabaddi in "Annual Sports Meet (2015-16)" Organized by Games and Sports Society (SAC), NIT Rourkela.
- ❖ Elected and served as **Games and Sports secretary** for V.S hall of residence, and coordinated various sports at NIT Rourkela, for the period of July 2015-June 2016.

REFERENCES

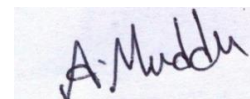
Dr. Dhananjay Singh Bisht, Associate Professor, Department of Industrial Design, Unitedworld Institute of Design (UID), Karnavati University, Gandhinagar 382422, Gujarat

Dr. Mohammed Rajik Khan, Associate Professor, Department of Industrial Design, National Institute of Technology, Rourkela, Odisha, India-769 008.
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DECLARATION

I hereby declare that all the details furnished above are fair and true to the best of my knowledge.

Date: 16-03-2024
Place: Palaparru



Dr. Muddu Allaparthi