Perumalla Janaki Ramulu

Personal Profile

Permanent Address
Door No. 7-161, Road No:03
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Almasguda,
Hyderabad-500058.
Telangana, India.
Mob: **+91-9494581470**

Personal E-mail:**srirama309@gmail.com**/
Institutional E-mail: **janakisri.perumalla@samskruti.ac.in**
Date of birth: **10-Aug-1978**
Known Languages: **Telugu, Hindi, English, Amharic**
Nationality: **Indian**; Religion: **Hindu**
Skype ID: **Dr. Perumalla Janaki Ramulu**
Passport Number: **X3355440 (upto 08.02.2034)**
Aadhar Number: **754557555620**
https://www.linkedin.com/feed/?trk=guest_homepage-basic_google-one-tap-submit
https://vidwan.inflibnet.ac.in/myprofile

Key Positions Attained

- **Principal** in Samskruti College of Engineering and Technology, Hyderabad, India.
- **Director** for ***Centre of Excellence for Advanced Manufacturing Engineering***
- **HoD** for Department of Mechanical Engineering
- PG curriculum **main member**
- PhD curriculum **main member**
- **Secretary** for the establishing Alumni Association of ASTU
- **Chair-person** for Promotion committee

Professional Certifications

- **Post-Graduate Professional** Certificate Program in **AI and Machine Learning** August 2023. **Simplilearn, India** in collaborations with **Purdue University** and **IBM**, USA.
- **Root Cause Analysis and the 8D Corrective Action Process, 20th April, 2024,** as taught by **Ray Harkins, The Manufacturing Academy on Udemy.**
- **Six Sigma: Certified Lean Six Sigma Green Belt (Accredited)** on **26th April, 2024** as taught by **Advanced Innovation Group Pro Excellence (AIGPE) on Udemy.**

Academic Qualifications

- **Ph.D.,** Mechanical Engineering**, [July 2008- Feb 2013]**
  Indian Institute of Technology (IIT) Guwahati, Guwahati, Assam, India. (***https://www.iitg.ac.in/***) (**NIRF: 07**)

- **M.Tech,** Manufacturing Engineering, **[2002-2004**]
  National Institute of Advanced Manufacturing Technology (NIAMT) (formerly **NIFFT)**, Ranchi, JH, India. (***https://niamt.ac.in/***) (**NIRF: 151-200**)

- **B. Tech,** Mechanical Engineering [**1997- 2001**]
  Vijay Rural Engineering College (under JNTU Hyderabad), Nizamabad, Telangana, India. (***https://www.vrec.ac.in/***) (**NIRF: N/A**)

Professional Experience (Industrial/Teaching/Research):

Institution/University:	**Samskruti College of Engineering and Technology, Hyderabad, India. (http://samskruti.ac.in/engineering/).**
Type of Organization:	**Private (**Autonomous**)**
Job Duration:	**12th September 2024** onwards
Type of Employment:	**Permanent**
Position/Designation:	**Professor** in the Department of Mechanical Engg. & CSM
Nature of Duties:	**Teaching, Research and Administration**
Positions Held:	**Principal**

Institution/University:	**Adama Science & Technology University (ASTU), Adama, Ethiopia. (https://www.astu.edu.et/).** 9th Rank in the Nation.
Type of Organization:	**Government of Ethiopia, East Africa**
Job Duration:	**29th September 2015 to 28th July 2024**
Type of Employment:	**Contractual** (Biannual)
Position/Designation:	**Associate Professor & Professor** in the Department of Mechanical Engineering
Nature of Duties:	**Teaching, Research and Advising to UG, PG and PhDs**
Positions Held:	**Director for CoE (2017 to 2022), Alumni Secretary (2022-till), PG Curriculum Member (2018 to till), PG coordinator (2016-2019)**

Institution/University:	**TKR College of Engineering & Technology (TKRCET), Hyderabad, Telangana, India. (https://tkrcet.ac.in/)**
Type of Organization:	**Private (**Autonomous**)**
Job Duration:	**11th May 2015 to 26th September 2015**
Type of Employment:	**Permanent**
Position/Designation:	**Professor (***Designated***)** in the Department of Mechanical Engineering
Nature of Duties:	**Teaching, Research and Advising to UG, and PG**
Positions Held:	**Head of the Department**

Institution/University:	**Vardhaman College of Engineering (VCE) Hyderabad, Telangana, India. (https://vardhaman.org/)**
Type of Organization:	**Private (**Autonomous**), Hyderabad, Telangana, India.**
Job Duration:	**14th December 2012 to 10th May 2015**
Type of Employment:	**Permanent**
Position/Designation:	**Professor (***Designated***)** in the Department of Mechanical Engineering
Nature of Duties:	**Teaching, Research and Advising to UG, and PG**
Positions Held:	**Head of the Department (in-charge), MESA in-charge, NBA in-charge, Research Publication Advisor, BOS member, Curriculum**

	In-charge
Institution/University:	**Indian Institute of Technology, Guwahati (*https://www.iitg.ac.in/*), Guwahati, Assam, India.**
Type of Organization:	**Govt (**Autonomous**)**
Job Duration:	**25th July 2008 to 5th September 2012**
Type of Employment:	**Researcher**
Position/Designation:	**Research Scholar** in the Department of Mechanical Engineering
Nature of Duties:	**Research and Teaching Assistant**
Positions Held:	**---**

Institution/University:	**Nizam Institute of Engineering and Technology (NIET) (*www.nizamengineering.ac.in*), Hyderabad, Telangana, India.**
Type of Organization:	**Private**
Job Duration:	**12th July 2006 to 25th July 2008**
Type of Employment:	**Permanent**
Position/Designation:	**Assistant Professor** in the Department of Mechanical Engineering
Nature of Duties:	**Teaching and Guiding UG**
Positions Held:	**Time Table in-charge, CAD/CAM lab in-charge**

Institution/University:	**Hyderabad Institute of Technology and Management (HITAM) (https://hitam.org/), Hyderabad, Telangana, India.**
Type of Organization:	**Private**
Job Duration:	**6th September 2004 to 10th July 2006**
Type of Employment:	**Permanent**
Position/Designation:	**Assistant Professor** in the Department of Mechanical Engineering
Nature of Duties:	**Teaching and Guiding UG**
Positions Held:	**---**

Project Trainee engineer, **RDCIS /SAIL**, Ranchi, on EN-19 Steel as part of M. Tech curriculum, Ranchi, Jharkhand, India. (**July 2003- July 2004)**

Industrial Training in **Heavy Engineering Corporation Ltd**. Ranchi, Jharkhand, India. (**June 2003-July 2003)**

Department/Institute/University Positions and services:

- **Member**- Scientific Sub-committee member for 3rd National Research Symposium, 2023-24
- **Secretary** for the establishing *Alumni Association of Adama Science & Technology University (ASTU)*, Ethiopia, from February, 2023-July 2024.
- **Director** for the ***Centre of Excellence for Advanced Manufacturing Engineering*** at Adama Science & Technology University (ASTU), Ethiopia, from May 2017 to December 2022.
- **Member** in the committee for ***curriculum development of MSc in Mechatronics*** in the department of Mechanical Engineering at Adama Science & Technology University (ASTU), Ethiopia, since 2021.
- **Member** in the ***Task-force committee for new curriculum development*** in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, since 2021-23.
- **Member** for **Discipline committee** in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, 2021-2022.
- **Member for PhD curriculum** (Homegrown Curriculum for PhD Program (HCPP)) in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, 2021-2023.
- **Chair-person for Promotion committee** in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, From 2020 to 2022.
- **Secretary for Technical Evolution committee for CoE office** at Adama Science & Technology University (ASTU) Ethiopia, From 2020 to 2021.
- **Programme Academic Council (PAC)** member in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU) Ethiopia, from 2015 to 2020.
- **Research and Publication committee member** in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, from 2015 to 2017.
- **PG curriculum and standard committee member** in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU) since January 2016.
- **Programme Graduate Committee (PGC)** member in the department of Mechanical Design and Manufacturing Engineering at Adama Science & Technology University (ASTU), Ethiopia, from 2016 to 2021.
- **Head of the Department of Mechanical Engineering** at TKR College of Engineering & Technology (TKRCET), Hyderabad from May 2015 to September 2015.
- **Involved in UGC, NAAC, and NBA** works at VCE from 2013 to 2015.
- **Research Coordinator** for Department of Mechanical and Aeronautical Engineering at VCE, 2014-2015.
- **BOS Member** in the Department of Mechanical Engineering at VCE from 2013 to 2015
- **Chief Advisor for MESA** n the Department of Mechanical Engineering at VCE from 2014-2015
- **In-charge Head of the Department** of Civil Engineering from September 2013-January 2015 at VCE
- **Coordinator for PG** seminars and projects (2012-2013)
- **Coordinator for UG** seminars and projects (2012-2013)
- **Committee member** for M.Tech projects

- **Project, Seminar and Comprehensive viva in-charge** in department of Mechanical Engineering, Holy Mary Institute of Technology (HIT) & Vardhaman College of Engineering Hyderabad, 2012 & 2013.
- **CAD/CAM lab in-charge in department of Mechanical Engineering**, Nizam Institute of Engineering and Technology, Hyderabad, 2007-2008.
- **Time table in-charge in department of Mechanical Engineering**, Nizam Institute of Engineering and Technology, Hyderabad, 2006-2008.

Certified courses:

- Python for Data Science
- Programming Refresher
- Introduction to Artificial Intelligence
- Statistics Essential for Data Science
- Math Refresher
- Deep Learning with Tensorflow and Keras
- Use cases of ChatGPT
- 3D Printing: From Start to Finish
- 3D Printing from Zero to Hero in Blender – FDM & MSLA
- Reinforcement Learning
- Data Science with R Programming
- AWS Database Migration
- Lean Management
- Machine Learning applied to manufacturing processing
- Python for Mechanical Engineering
- Machine Learning
- Advanced Deep learning: Computer Vision
- Numerical Methods and Optimization in Python
- MATLAB Master Class: Go from Beginner to Expert in MATLAB
- Natural Language Processing and Speech Recognition

Research Interest:

- Sheet Metal Forming
- Advance Joining Techniques
- Material Characterization
- Mathematical Modeling of Manufacturing Processes
- Design and Analysis of Manufacturing Methods
- Finite Element Analysis of Manufacturing Operations
- Mechanical Behavior of different materials
- Metal Matrix composites fabrication and characterization
- Additive Manufacturing Systems
- AI application for Manufacturing Methods

Skill Sets:

Finite Element Analysis	**:**	PAM STAMP 2G, DEFORM 3D, ABAQUS, ANSYS
Programming	**:**	C, C++, MATLAB, Python
CAD Modeling	**:**	Pro/E (wild fire), AutoCAD, SolidWorks
Operating systems	**:**	Win-NT/2000, Win -XP, Win-8,10

Achievements/Awards/Honors:

- Received **Exemplary contribution of Research & Education sector** awards from Bharat Education Excellence Awards on 8th November 2025.
- PhD student paper got **the best paper award** for a paper titled "Influence of Alkaline treatment on the micro structural properties of Carea aboria fiber" during *3rd International Conference on Sustainable materials, Manufacturing and Renewable Technologies,* Marching Towards a Sustainable Future, 24-26th May 2023.
- Visited **Seoul National University (SNU), South Korea** as a university representative for establishing center of excellence in Adama Science and Technology University, Adama, Ethiopia, **2022** for a week period**.**
- Received **Research Incentive** of 10,000 INR for publishing a paper in reputed journal in the academic year 2013 at Vardhaman College of Engineering, Hyderabad.
- Received grant from **Department of Science and Technology (DST)**, for organizing an International conference on Advances in Mechanical Sciences 2014 during 9-11 January 2014, Hyderabad, India.
- Received **"BEST STUDENT PAPER BRONZE AWARD"** in Twentieth International symposium on Process and Fabrication of Advanced Materials (PFAM) 2011, held at The Hong Kong Polytechnic University- Hong Kong.
- Received foreign travel grant from **Department of Science and Technology (DST)**, India, 2010 and 2011.
- One of the B. Tech projects titled "**Analysis of trinity blade system**" under my supervision won the gold medal in 39th All India Student Design Awards – 2008.
- Qualified **IELTS - International English Language Testing System** in year of 2006
- Qualified **GATE** consecutively in year 2001 and 2002

Technical Memberships:

- Member All India Council For Technical Skill Development (**AICTSD**)
- Member Ethiopian Materials Research Society (**Et-MRS**)
- Member in American Society of Mechanical Engineers (**MASME**)
- Permanent member of Institute of Engineers (**MIE**)
- Permanent member in Sheet Metal Forming Research Association (**SMFRA**)
- Permanent member in International Deep Drawing Research Group (**IDDRG**)
- Member of Ethiopian Society of Mechanical Engineers (**ESME**)
- International Scientific Academy of Engineering & Technology (**ISAET**)
- Permanent associate member in International Association in Computer Science and Information Technology (Mechanical Engineering Group) **IACSIT (MEG)**
- Permanent member in International Association of Engineers (**IAENG**)
- Permanent senor member in SCIence and Engineering Institute (**SCIEI**)
- Senior Member in of Universal Association of Mechanical and Aeronautical Engineers (**UAMAE**)
- Member in World Academy of Science, Engineering and Technology (**WASET**)

Events Organized:

- International Conference on "**Reclaiming Humanity and Global Vision for Justice: Dr. B. R. Ambedkar**", August, 02-03, 2025- (ONLINE MODE)
  Role: Co-Ordinator

- 5day bootcamp on "**UAS/Drone Technology**" as part of "**SwaYaan: capacity building for HRD in unmanned aircraft systems (Drone and Related technology)**" Project of MEITY. The bootcamp was conducted by C-DAC, Hyderabad at Samskruti College of Engineering and Technology, Hyderabad during 10-14 February 2025.
  Role: **Convener**

- National conference on **Artificial Intelligence of Things-2024** (AIoT-2024), on 29-30 November, 2024 at Samskruti College of Engineering and Technology, Ghatkesar, Hyderabad, Telangana, 501301, India.
  Role: Chairman

- National Research Symposium on "**Research and Technology for Building Green Economy**", May 2024 at Adama Science & Technology University (ASTU), Adama, Ethiopia.
  Role: Scientific Member

- Professorial Development Program "***Essentiality of Python Programming for Mechanical Engineers***", during 9th February-9th March 2024 at Adama Science & Technology University (ASTU), Adama, Ethiopia.
  Role: Program Organizer

- **2nd Silk Road Symposium on Advanced Manufacturing (SAM 2019),** during 3-5 November 2019 at Adama Science & Technology University (ASTU), Adama, Ethiopia.
  Role: Organizing Secretary

- Advances in Mechanical Sciences in Emerging Trends, One-week Faculty Development Program during 11-17th December 2014 at Vardhaman College of Engineering, Hyderabad.
  Role: Organizing Committee member

- International Conference on Advances in Mechanical Sciences 2014 (ICAMS2014) during 9-11 January 2014 at Vardhaman College of Engineering, Hyderabad.
  Role: Organizing Secretary

- Computational Fluid Dynamics-Theory and Applications-One-week Faculty Development Program during 10-15th June 2013 at Vardhaman College of Engineering, Hyderabad.
  Role: Organizing Committee member

- MATLAB for Engineering Research-Ten Days Faculty Development Program during 17-26th June, 2013 at Vardhaman College of Engineering, Hyderabad.
  Role: Technical Advisor

Workshops/Faculty Development Programs attended:

- **Participated & completed** AICTE Training and Learning (ATAL) Academy Faculty Development Program on "**Generative AI for Education"** at Princeton Institute of Engineering & Technology For Women from 18/08/2025 to 23/08/2025.

- **Participated** in Two -Week Online Refresher Course on **"Optimization Tools for Engineering Applications"** held from **14/07/2025** to **29/07/2025.** University Grants Commission Malaviya Mission Teacher Training Centre (UGC-MMTTC), Jawaharlal Nehru Technological University Hyderabad, Hyderabad, Telangana, India, UGC - SPONSORED Refresher Course.

- **Participated & completed** AICTE Training and Learning (ATAL) Academy Faculty Development Program on "**Recent trends in 5G/6G Wireless Communication**" at Samskruti College of Engineering and Technology from 06/01/2025 to 11/01/2025.

- National Level One Week FDP on "**Emerging Trends in Advance Manufacturing Technology**", 20-24th FEB 2024. Department of Mechanical Engineering, School of Engineering and Technology, Sandip University Nashik.

- **Advances in Mechanical Sciences in Emerging Trends**, One-week Faculty Development Program during 11-17th December 2014 at Vardhaman College of Engineering, Hyderabad.
- **Composite Materials and Manufacturing Processes**, Two Day Workshop during 12th and 13th November 2014 at TKR College of Engineering & Technology, Hyderabad.
- **MATLab for Engineering Research**-Ten Days Faculty Development Program during 17-26th June 2013 at Vardhaman College of Engineering, Hyderabad.
- **Computational Fluid Dynamics**-Theory and Applications- One Week Faculty Development Program during 10-15th June 2013 at Vardhaman College of Engineering, Hyderabad.
- **Mechatronics** - One-week workshop during June 16-20, 2008 at Institute of Engineers, Hyderabad.

Books /Book Chapters/Journal issues (edited):

1. Mitiku, Gadisa Adamu, Ketema Adere Gemeda, and **Perumalla Janaki Ramulu**. "Detection and Classification of Bypass (SIMBox) Fraud Using Deep Learning: A Case Study on Ethio-Telecom of Ethiopia." In *Pan African Conference on Artificial Intelligence*, pp. 32-57. Cham: Springer Nature Switzerland, 2024.

2. Praveen Kumar Reddy, P., Chinmaya Prasad Padhy, and **Perumalla Janaki Ramulu**. "Forming Analysis of Metal-Polymer-Metal Sandwich Sheets." In *International Conference on Processing and Fabrication of Advanced Materials*, pp. 523-533. Singapore: Springer Nature Singapore, 2023. https://link.springer.com/chapter/10.1007/978-981-97-5963-7_36

3. Tariku Desta, Devendra Kumar Sinha, **Perumalla Janaki Ramulu**, Birhane Assefa Gemeda, Ram Sewak Singh, Modeling and Optimization of Deformation Load In Warm Continuous Extrusion Process, Optimization of Advanced Manufacturing Processes, 2024, Publication Date: 2024/11/29, Publisher: CRC Press. ISBN: 1774916029,9781774916025.
   https://www.taylorfrancis.com/chapters/edit/10.1201/9781003487128-12/modeling-optimization-deformation-load-warm-continuous-extrusion-process-tariku-desta-devendra-kumar-sinha-perumalla-janaki-ramulu-birhane-assefa-gemeda-ram-sewak-singh.

4. Jeevan Rao, H., S. Singh, **P. Janaki Ramulu**, M. R. Sanjay, and Thiago F. Santos. "Effect of Various Alkaline Treatment on the Micro Structural Properties of Careya arborea Fiber." In *International Conference on Scientific and Technological Advances in Materials for Energy Storage and Conversions*, pp. 547-556. R. Kumar et al. (eds.), Advances in Manufacturing and Materials, Lecture Notes in Mechanical Engineering, DOI: https://doi.org/10.1007/978-981-97-3173-2_37, eBook ISBN 978-981-97-3172-5. Springer Nature Singapore Pte Ltd. 2024

5. Sanjay Singh, **Perumalla Janaki Ramulu**, Sachin Singh Gautam, Recent Advances in Aerospace Engineering- Select Proceedings of MRAE 2023, Lecture Notes in Mechanical Engineering, DOI: https://doi.org/10.1007/978-981-97-1306-6, Publisher Springer Singapore, eBook ISBN 978-981-97-1306-6 Published: 27 April 2024, Series ISSN 2195-4356, Series E-ISSN 2195-4364, Edition Number1, Number of Pages XVI, 615.

6. Rao, Hanumanthu Jeevan, Sanjay Singh, **Perumalla Janaki Ramulu**, Narender Singh, Thiago F. Santos, Caroliny M. Santos, Nandini Robin Nadar, and Gara Dheeraj Kumar. "Nature-Inspired Nano Cellulose Materials, Advancements in Nano Cellulose Preparation and Versatile Applications." In Nanocellulose-Sources, Preparations, and Applications. IntechOpen, **2024**.

7. Ahmed, Gulam Mohammed Sayeed, Mengistu Gelaw, **Perumalla Janaki Ramulu**, Belay Brehane, Devendra Kumar Sinha, and Satyam Shivam Gautam. "Web Buckling Investigation of Direct Metal Laser Sintering-Based Connecting Rod with Hexagonal Perforations." In Advanced Manufacturing Processes, pp. 51-77. CRC Press, **2022**.

8. Bekele, T., **Janaki Ramulu, P.**, Beri, H., Siraji, A., Praveen Kumar Reddy, P. (2022). Formability Analysis of Metal–Polymer Sandwich Composites Made of Al and PE Sheets Using Numerical Simulations. In: Inal, K., Levesque, J., Worswick, M., Butcher, C. (eds) NUMISHEET 2022. The Minerals, Metals & Materials Series. Springer, Cham. https://doi.org/10.1007/978-3-031-06212-4_18.

9. Siraji, A., Bekele, T., **Janaki Ramulu, P.**, Beri, H., Venkateswar Reddy, P. (2022). Investigation of the Effect of Blank Holding Force on Earing Defect During Circular Deep Drawing Process Through Finite Element Analysis and Experimentation Using AA6061 and Low-Carbon Steel Sheets. In: Inal, K., Levesque, J., Worswick, M., Butcher, C. (eds) NUMISHEET 2022. The Minerals, Metals & Materials Series. Springer, Cham. https://doi.org/10.1007/978-3-031-06212-4_20.

10. Solomon, Y., Sinha, D.K., **Ramulu, P.J.**, Gautam, S.S. (2022). Numerical Investigation of Product Capability and Enhancement Through Multi-hole Extrusion Process. In: Chaurasiya, P.K., Singh, A., Verma, T.N., Rajak, U. (eds) Technology Innovation in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-16-7909-4_7.

11. Narayanan, R. G., **Ramulu, P. J.,** Satheeshkumar, V., Agrawal, A. K., Das, S., Kumar, A., & Namboodiri, V. V. (**2022**). Fabrication of Tailor-Made Metallic Structures for Lightweight Applications and Mechanical Behaviour. In Handbook of Research on Advancements in the Processing, Characterization, and Application of Lightweight Materials (pp. 216-261). IGI Global.

12. Rao, H. J., Singh, S., **Ramulu, P. J**., & Agarwal, B. K. Characterization Techniques and Evolution of Natural Polymer Nanofiber Composites (NPNFCs): An Extensive Study. Advances in Engineering Materials: Select Proceedings of FLAME **2020**, 173.

13. (*Conference*) **Perumalla Janaki Ramulu** and Habtamu Beri, Souvenir of 2nd Silk Road Symposium on Advanced Manufacturing (SAM 2019), 2019.

14. Dereje H/Georgis, **Perumalla Janaki Ramulu** and Habtamu Beri, **Chapter 3:** Formability Evaluation of EN-10149-2 (S700mc) Steel Under In-Plane Plane Stretching Condition, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_3, Springer Nature Singapore Pte Ltd. 2020.

15. Manaye Mathewos Handiso, **Perumalla Janaki Ramulu** and G. Somasundaram, *Chapter 4: Stretch Formability Prediction of AA6023-T6 Alloy Sheet Under Two Different Heating Conditions*, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_4, Springer Nature Singapore Pte Ltd. 2020.

16. P. Venkateshwar Reddy, D. Mohana Krishnudu, U. Pranavi and **P. Janaki Ramulu**, *Chapter 7: Optimization of the Forming Parameters in U-Bending for Punch Force and Springback Using Taguchi Method*, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_7, Springer Nature Singapore Pte Ltd. 2020.

17. Kemal Ramato, **Perumalla Janaki Ramulu** and N. R. R. Anbusagar, *Chapter 8: Experimental Analysis on Springback of JIS 3302 Grade Steel Sheet Material Under Various Heat-Treated Conditions*, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_8, Springer Nature Singapore Pte Ltd. 2020.

18. Gizaw Yohannes, Habtamu Beri and **Perumalla Janaki Ramulu**, *Chapter 61: Fabrication of Hexagonal Bar from Aluminum Alloy AA6063 Scrap by Frictional Stir Back Extrusion on Milling Machin*e, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_61, Springer Nature Singapore Pte Ltd. 2020.

19. Getachew Gashaw, **Perumalla Janaki Ramulu**, and Ch. Venkatesh, Chapter 62: Fabrication, Characterization and Evaluation of Mechanical Properties of Aluminium Hybrid Matrix Composite (Al6063/SiC-Bagasse Fly-Ash), Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/ 10.1007/978-981-32-9072-3_62, Springer Nature Singapore Pte Ltd. 2020.

20. Tesfaye Mathewos, **Perumalla Janaki Ramulu** and Esmael Adem Esleman, *Chapter 78: Design Analysis and Modification of Sugarcane Fibrizer Hammer at Wonji Shoa Sugar Factory (WSSF) Ethiopia*, Lecture Notes on Multidisciplinary Industrial Engineering, Advances in Computational Methods in Manufacturing, Select Papers from ICCMM 2019. ISBN: 978-981-32-9071-6, https://doi.org/10.1007/978-981-32-9072-3_78, Springer Nature Singapore Pte Ltd. 2020.
21. **Perumalla Janaki Ramulu** (November 27th 2019). **Aluminum Alloys Behavior during Forming**, Intech Open, DOI: 10.5772/intechopen.86077. Available from: https://www.intechopen.com/online-first/aluminum-alloys-behavior-during-forming.
22. (Book) **Perumalla Janaki Ramulu**, A. Lavanya, (2016), *Design and Fabrication of Equal Channel Angular Extrusion Process Analysis for Non-Ferrous Materials*, Anchor Academic Publisher, Hamburg, ISBN: 978-3-96067-606-5.
23. Sudhindra Katre, Siddhartha Karidi, B. Durga Rao, **P. Janaki Ramulu**, R. Ganesh Narayanan, ***Spring-back and Formability Studies on Friction Stir Welded Sheets***, Advances in Material Forming and Joining Topics in Mining, Metallurgy and Materials Engineering 2015, pp 141-165. DOI 10.1007/978-81-322-2355-9_7, Print ISBN 978-81-322-2354-2, Online ISBN 978-81-322-2355-9.
24. (***Conference***) **Perumalla Janaki Ramulu** and P. Srinivasa Rao, Souvenir of International Conference on Advances in Mechanical Sciences 2014.
25. (***Conference***) **Perumalla Janaki Ramulu** and P. Srinivasa Rao, Proceedings of International Conference on Advances in Mechanical Sciences 2014.
26. (***Journal Issue***) **Perumalla Janaki Ramulu**, Special issue on Advances in Mechanical Sciences Vol. 4, International Journal of Current Engineering and Technology, International press corporation publishers, **ISSN:** Electronic-2277 – 4106, Print-2347 – 5161.

Patents: (Published/Granted)

1. Ms.T.Madhavi, D. Ravi Shankar, K.Prasanna Lakshmi, **P. Janaki Ramulu**, Sirish Bhattacharya, Daya Sindhu Gupta**,** Title of the invention: Palmate (Particulate Arbitrary Location Mapping By Acoustic Tracing of Echo).

   Application No.202541077151 A, Date of filing of Application :13/08/2025

   Publication Date : **29/08/2025**

2. M.Rajeswara Reddy, Kilaru Mounika, P. Balaraju, Aseenababu Shaik, **P.Janaki Ramulu**, V. Kalyani, Malladi Ramakanth Reddy, Title of the invention: Hybrid Energy Harvesting System For Autonomous Robots Using Piezoelectric and Solar Energy.

   Application No.202541050416 A, Date of filing of Application :26/05/2025, Publication Date : **13/06/2025**

3. Malladi Ramakanth Reddy, T.Vijaya Babu, M.Rajeswara Reddy, **P.Janaki Ramulu**, M. K.Anusha, K.Shashidhar, Title of the invention: Intelligent Edge Computing System For Real-Time Monitoring And Control Of Industrial Equipment.
   Application No.202541050415 A, Date of filing of Application :26/05/2025,
   Publication Date : 13/06/2025

4. Pathapalli Venkateshwar Reddy, Basam Veerabhadra Reddy, Pitta Srinivasa Rao, **Perumalla Janaki Ramulu**, Daya Sindhu Gupta, Sirish Srinivas Bhattacharya. AN APPARATUS FOR ATMOSFORMING A WORK PIECE INTO A PRODUCT as disclosed in the above-mentioned application for the term of 20 years from the 12th day of May 2020 in accordance with the provisions of the Patents Act, 1970.

   Patent No. : 487616; Date of Filing: 12/05/2020.

Chief Guest/Invited lectures/Keynotes/ Guest Lectures:

- **An Expert talk** on "***Implications & Influences of GenAI Concepts on Digital Manufacturing Industries***" on August 22, 2025, Organized by Dept. of Mechanical Engineering, Greater Noida Institute of Technology (GNIOT), Noida, India.
- **Keynote Speaker** on **Research Impacts on Professional Career *(Enhancing Growth, Innovation, and Opportunities),*** *a five*-day online Faculty Development Program (FDP) on **Research Methodologies**, scheduled for November 16, 2024, at Samskruti College of Engineering and Technology.
- **Keynote Speaker** on "**Research Prosperity for Professionals**", International Webinar Series on **Cutting–Edge Engineering Research** on 25th October 2024 for Channabasaveswara Institute of Technology, Gubbi, Tumkur 572 216 (Near Bangalore), Karnataka, India.
- **Chief Guest** of "**Valedictory Session**" on February 17, 2024 of Five Day's Faculty Develop Program on "Intellectual Property Rights, Product Development & Entrepreneurship" (Hybrid Mode) held from February 13, 2024 to February 17, 2024.
- **Keynote Speaker** on "**AI and its infusion in the manufacturing sector**", ASME platform Indian section, India on 17th February 2024.
- **Keynote Speaker** on "**AI and its infusion in the manufacturing sector**", 2nd International Aerospace Conference, MRAE-2023, Amity University, Noida, India.
- **Keynote Speaker** on "**AI and its infusion in the Manufacturing Engineering for Industry Sustainability**", International Conference On Computational Intelligence & Sustainable Development – 2023, Chaitanya Deemed to be University, Telangana, India, August 18-19, 2023
- **Keynote Speaker** on **"Soft Computing Techniques Significance on Metal forming Processes"** in International Conference on Experimental and Computational Methods in Manufacturing (ICECMM 2021), August 28-29, 2021, NERIST, Nirjuli 791109, India.
- **Invited Speaker** on "**Forming behavior of Aluminum alloys**" in 2nd International Conference on Computational Methods in Manufacturing (ICCMM 2019), March 8-9, 2019 at IIT Guwahati, India.

- **Guest lecture** for PhD courses of "**Metal Forming Analysis and Metal Matrix Composites"** at Jimma University, Jimma, Ethiopia in the Metallurgy Department. 2018.
- **Keynote lecture** on **"Mechanical behavior of Materials"** in **Advances in Mechanical Sciences in Emerging Trends**, One-week Faculty Development Program during 11-17th December 2014 at Vardhaman College of Engineering, Hyderabad.
- **Guest lectures** on ***Engineering Mechanics*** subject at **Tirumala Institute of Engineering and Technology,** Nizamabad during 22-26 March 2013.
- **Guest lectures** on ***Advanced Metal forming processes*** at **Holy Mary Institute of Technology** Hyderabad 2013.
- **Guest lectures** on ***Mechanical Behavior of Materials*** at **Tirumala Institute of Engineering and Technology,** Nizamabad on 17 December 2014.

Webinar Lectures Delivered/Attended:

1. **Attended** Dr. H. K. Kual memorial lecture on "**Libraries in age of AI and Big data**" on 1st July 2025.

2. **Attended** Webinar on "**Truth in AI systems**" conducted by University of Delhi, on 30th May 2025.

3. **Attended** "***Learn How to Ace Your Next AI/ML Interview with Expert Tips****"*, Oct 31st, 2023, by Simplilearn.

4. **Attended** An International Workshop on "***Yesterday, Today and Tomorrow of Automotive Mobility Sector***", 20th December 2021, Department of Mechanical Engineering, School of Mechanical, Chemical & Materials Engineering, Adama Science and Technology University, Adama, Ethiopia.

5. **Keynote Lecture** on ***"Significance of Soft-Computing techniques for metal forming"***, International Conference on Experimental and Computational Methods in Manufacturing (ICECMM 2021) September 28-29, 2021. Department of Mechanical Engineering, North Eastern Regional Institute of Science and Technology, Nirjuli – 791109, Arunachal Pradesh, India.

6. **Keynote Lecture** on ***"Soft Computing Techniques and their Applications in Manufacturing Problems"*** on Monday, August 16, 2021 during a five day online faculty development programme titled **"Digital Manufacturing Evolutions for Smart Industries"** From 16th to 20th August, 2021 at Poornima College of Engineering Jaipur, Rajasthan (India).

7. **Participated** in a five-day online faculty development programme titled **"Digital Manufacturing Evolutions for Smart Industries"** From 16th to 20th August, 2021 at Poornima College of Engineering Jaipur, Rajasthan (India).

8. **Keynote Lecture** on "***Manufacturing Engineering Evolution/Revolution from Conceptual to Ratiocination"*** International Conference on Innovations and Challenges in Mechanical Engineering (ICICME 2021), (28 June to 29 June 2021), Organized by Department of Mechanical Engineering, KL University, Vijayawada, AP, India.

9. **Keynote Lecture** on "***Manufacturing Engineering Evolution/Revolution from Conceptual to Ratiocination"*** for One-Week Online Faculty Development Program on Recent Developments in Manufacturing Technology (RDMT) (21 June to 26 June 2021) Organized by Department of Mechanical Engineering, Sreyas Institute of Engineering and Technology, Hyderabad-500068, India.

10. **Participated** in One Week Online Faculty Development Program on ***Advanced Research Challenges in Materials***, 01st to 06th June 2020, Organized by Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepalligudem, West Godavari District – 534101.

11. **Expert Lecture** on ***"Finite Element Modeling of Metal Forming Processes"*** One Week Online Faculty Development Program on ***Advanced Research Challenges in Materials***, 01st to 06th June 2020, Organized by Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepalligudem, West Godavari District – 534101.

12. **Expert Lecture** on ***"Finite Element Modeling of Metal Forming Processes"*** held on Friday, June 05, 2020 at Poornima College of Engineering Jaipur, Rajasthan (India).

13. **Expert Lecture** on ***"Mathematical modeling Impact on Welding Processes"*** held on Monday, June 15, 2020 at Vignan Institute of Technology and Science, Hyderabad (India).

14. **Participated** a one-week International Online Faculty Development Program on "***Potential Research areas in Mechanical Engineering"*** held on Monday, June 15, 2020 to 20 June 2020 at Vignan Institute of Technology and Science, Hyderabad (India).

15. **Expert Lecture** on ***"Formability of micro-forming analysis of non-ferrous materials"*** held on Friday, June 05, 2020 at Poornima College of Engineering Jaipur, Rajasthan (India).

Conferences Attended and papers presented:

1. **Participated and presented** a paper titled "**Smart Agriculture: Harnessing Emerging Technologies for Sustainable Crop Production"**" at the international conference on Indian Knowledge Systems (IKS)-2025held on 12th &13th September 2025 at Megha Institute of Engineering and Technology for Women, Hyderabad.
2. **Participated and presented** a paper titled "**Essence of Management Mantras in Indian Knowledge Systems (IKS) on Modern Lifestyle**" at the international conference on Indian Knowledge Systems (IKS)-2025held on 12th &13th September 2025 at Megha Institute of Engineering and Technology for Women, Hyderabad.

3. **Participated** in "National Seminar on Empowering India's Research Future" held on 9th and 10th July 2025 at Engineering staff college of India, Hyderabad. Organized by Research Heights Foundation.
4. **Participated and presented** a paper on "Manufacturing excellence through Industry 4.0 technologies – an overview" in the 3rd National Research Conference on Recent Advances in Automotive and Manufacturing Technology/Engineering (RAAMT'24) June 3rd, 2024 at FDRE Technical Vocational and Training Institute (TVTI) Addis Ababa, Ethiopia.
5. **Participated and presented** a paper on "*AI and its infusion in the Manufacturing Sector Sustainability*" in National Research Symposium on "Research and Technology for Building Green Economy", May 2024 at Adama Science & Technology University (ASTU), Adama, Ethiopia.
6. **Participated and presented** a paper on *Assessment of the correlation between Chip Morphology, Tool Geometry, and Cutting Power During CSN 12050 Carbon Steel Dry Cutting,* **1st National Research Conference on Recent Advances in Automotive and Manufacturing Technology/Engineering (RAAMT'21)**, held at Ethiopian Technical University campus, Addis Ababa, Ethiopia on the days 30th June and 1st July 2021.
7. **Participated and presented** a paper on *Mechanical Properties of Aluminum Based Metal Matrix Composites – A Review*, **International Conference on Engineering Research & Technology Transfer (ICERTT 2k21)**, 14& 15th May 2021, Bule Hora University, Bule Hora, Ethiopia.
8. **Participated** in the virtual "***Conference on Current Trends in Sheet Metal Forming***" organized by Sheet Metal Forming Research Association (SMFRA) in association with Indian Institution of Technology Delhi during December 18-19, 2020
9. **Presented** a paper entitled "Numerical Modelling and Formability of with and without Heat-Treated AA 6023-T6 Alloy Sheet with Various Necking/Failure Criteria" at IDDRG 2020-Virtual (The 39th International Deep Drawing Research Group 2020-Virtual) which is held virtually in Korea during October 26-30, 2020 by the Korean Society for Technology of Plasticity.
10. **Participated** at ***IDDRG 2020-Virtual (The 39th International Deep Drawing Research Group 2020-Virtual)*** which the Korean Society holds virtually in Korea during October 26-30, 2020 for Technology of Plasticity.
11. **Participated** 2nd International Conference on Computational Methods in Manufacturing (ICCMM 2019), March 8-9, 2019 held at Indian Institute of Technology, Guwahati, India.
12. **Presented** and **participated** on Formability analyses on single point incremental sheet forming process, ***National Conference on Innovative Science and Technology for Sustainable Development (IST-2017)*** May 20th and 21st, **2017**, Kombolcha, Ethiopia.
13. **Presented on** "Experimental study on temperature variations at different process parameters during friction stir welding of 6061-T6 aluminum alloy". ***5th International &***

***24th National conference All India Manufacturing Technology, Design and Research (AIMTDR)* 2014**.

14. **Participated** at 5th International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2014**.
15. **Participated** at 5th International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2014.**
16. **Participated** at 5th International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2014.**
17. **Participated** at 5th International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2014**.
18. **Participated** at 5th International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2014**.
19. **Presented on** "Influence of weld location and orientation on the formability of friction stir welded sheets made of Al 6061 alloy", International deep drawing research group (IDDRG), **2012**.
20. **Presented on** "Formability evaluation of FSW blanks made of aluminum sheet: Influence of welding speed and tool rotation speed", Twentieth International Symposium on Processing and Fabrication of Advanced Materials (PFAM XX) December 15-18, **2011**, Hong Kong.
21. **Presented on** "Formability evaluation of FSW blanks made of aluminum sheet: Influence of shoulder diameter and plunge depth" 49th National Metallurgists' Day and 65th annual technical meeting of the Indian Institute of Metals, 13-16 November **2011.**
22. **Presented on** "Weld zone representation during the formability prediction of friction stir welded blanks with equal thickness", 3rd International & 24th National conference All India Manufacturing Technology, Design and Research (AIMTDR) **2010**, Volume 2: 989-994.
23. **Presented on** "Representing weld zone during friction stir welded blank formability prediction",3rd International Congress on Computational Mechanics and Simulation (ICCMS-09).
24. **Presented on** "Forming limit prediction of friction stir welded blanks",3rd International Congress on Computational Mechanics and Simulation (ICCMS-09).

Research Publications (Journals and Proceeding Papers):

Journals:

1. Kunchala, Balakrishna Reddy, Krishnaveni, Savanam, Chalapaka, Prudhvi Raj, Teja, Jampu Brahma, Charan, Pendyala Jyothi Sai, **Ramulu, Perumalla Janaki**, Raju, L. Suvarna, Assessing the Visual SLAM Performance in Autonomous Mobile Robots Using

Adaptive GMapping and Cartography, Journal of Engineering, 2026, 3730789, 13 pages, 2026. Online ISSN: 2314-4912, Print ISSN: 2314-4904, [**IF: 2.3, ESCI, and Scopus, 'Q2', Corresponding-Author**], https://onlinelibrary.wiley.com/doi/10.1155/je/3730789, DOI: https://doi.org/10.1155/je/3730789

2. Venu, B., Yarlagaddaa, J., Malkapuram, R., **Ramulu, P. J.,** & Raju, L. S. (2026). Q-learning-based optimization of process parameters for ultrasonic vibration assisted friction stir welding of AA2014-T651. *Journal of Mechanical Science and Technology*, 1-10. Electronic ISSN: 1976-3824, [**IF: 1.7, SCIE, and Scopus, 'Q2', Corresponding-Author**]. https://link.springer.com/article/10.1007/s12206-026-0220-2, DOI: https://doi.org/10.1007/s12206-026-0220-2

3. Kumar, N. Satheesh, V. Ramakrishna, M. V. Kamal, K. Sathish Kumar, and **Perumalla Janaki Ramulu**. "Swarm-Based Intelligent Models for Developing Cybersecurity Frameworks with IDS." Scientific Reports | (2026) 16:3492. ISSN 2045-2322 (online), [**IF: 4.3, WOS, PubMed, and Scopus, 'Q1', Corresponding-Author**]. https://www.nature.com/articles/s41598-025-30223-x, https://doi.org/10.1038/s41598-025-30223-x

4. Raghavendran, Ch V., K. Chandra Mouli, Manu Hajari, A. Anil Kumar Reddy, V. Shiva Narayana Reddy, and **Janaki Ramulu Perumalla.** "Ethereum Price Prediction Using Time Series and Deep Learning Techniques." *Applied Computational Intelligence and Soft Computing* 2025, no. 1 (2025): 6167862. Online ISSN:1687-9732 [**IF: 2.9, Scopus and ESCI, 'Q1', Corresponding-Author**]. https://doi.org/10.1155/acis/6167862, https://onlinelibrary.wiley.com/doi/full/10.1155/acis/6167862.

5. Madhavi, T., DV Ravi Shankar, K. Prasanna Lakshmi, and **Perumalla Janaki Ramulu**. "Externally induced low frequency tool chatter for optimizing the FSW weld of Al–SiC matrix." *Discover Applied Sciences* 7, no. 9 (2025): 1013. [**IF: 2.8, Scopus and ESCI, 'Q2', Corresponding-Author**]. https://doi.org/10.1007/s42452-025-06882-w https://link.springer.com/article/10.1007/s42452-025-06882-w

6. Jani, S. P., Sujin Jose Arul, M. Adam Khan**, P. Janaki Ramulu**, and Esmael Adem Esleman. "Enhancing mechanical and erosive properties of hybrid polymer composites using synergistic fiber-filler interactions." *Composites and Advanced Materials* 34 (2025): 26349833251318049. [**IF: 1.7, Scopus and SCIE, 'Q2', Co-Author**]. DOI: https://doi.org/10.1177/263498332513180. https://journals.sagepub.com/doi/full/10.1177/26349833251318049.

7. Weldeanenia, K. G., Kassegne, S. K., & **Ramulu, P. J**. (2025). Governing of Melt Pool Solidification Parameters and Microstructure Evolution Indicator During SLM-Ti6Al4V Alloy Through Parametric Sweep Optimization. *Engineering Reports*, *7*(1), e13040. ISSN:2577-8196, [**IF: 1.8, Scopus, ESCI and WoS, 'Q2', Corresponding-Author**] DOI: https://doi.org/10.1002/eng2.13040. https://onlinelibrary.wiley.com/doi/full/10.1002/eng2.13040

8. Jani, S. P., Sujin Jose Arul, R. Muthalagu, M. Prakash Babu, and **Janaki Ramulu Perumalla**. "Assessment, analysis and optimization for high temperature sliding wear process parameter with additive built nickel base superalloy." Materials Research Express 11, no. 10 (2024): 106521. ISSN: 2053-1591, [**IF: 1.8, Scopus and WoS, 'Q2', Corresponding-Author**], DOI: 10.1088/2053-1591/ad8866, https://iopscience.iop.org/article/10.1088/2053-1591/ad8866/meta.

9. Weldeanenia, Kidu Gebrecherkos, Sam Kassegne, and **Perumalla Janaki Ramulu.** "Minimization of melt-pool field variables fluctuation during selective laser melting of Ti6Al4V alloy through computational investigation." *Modelling and Simulation in Materials Science and Engineering* (2024). ISSN: 1361-651X, [**IF: 1.9, SCI, Scopus and SCIE, 'Q1', Corresponding-Author**], **DOI:**10.1088/1361-651X/ad8fbf, https://iopscience.iop.org/article/10.1088/1361-651X/ad8fbf/meta.

10. H. Jeevan Rao, S. Singh, Narender Singh, **P. Janaki Ramulu**, Thiago F. Santos, Caroliny M. Santos, P. Senthamaraikannan, Indran Suyambulingam, Femiana Gapsari, Rudianto Raharjo, Sanjay Mavinkere Rangappa, Suchart Siengchin, "Enhancing Mechanical Performance and Water Resistance of Careya-Banana Fiber Epoxy Hybrid Composites through PLA Coating and Alkali Treatment." Journal of Materials Research and Technology, 1 September 2024, Online ISSN: 2214-0697, Print ISSN: 2238-7854, [**IF: 6.2, Scopus and SCIE, 'Q1', Co-Author**], https://doi.org/10.1016/j.jmrt.2024.08.190, https://www.sciencedirect.com/science/article/pii/S223878542401980X.

11. Gujjar, Sandeep V., Sharad G. Joshi, A. M. Hunashyal, H. Jeevan Rao, and **Janaki Ramulu Perumalla**. "Investigating the improvements in morphometric and mechanical properties of mild steel coated with polymer-based hybrid nano composites." *Composites and Advanced Materials* 33 (2024): 26349833241265733. ISSN: 2634-9833, [**IF: 1.7, Scopus and SCIE, 'Q2', Corresponding-Author**], DOI: https://doi.org/10.1177/26349833241265733. https://journals.sagepub.com/doi/10.1177/26349833241265733

12. Wordofa, Tesfaye Negash, **Janaki Ramulu Perumalla**, and Abhay Sharma. "Mechanical and microstructural characterization of AISI SAE 4130 steel welded joints made by robotic gas metal arc welding process: influence of electrode work angle in 'T' welded joints." *Materials Research Express* 11, no. 6 (2024): 066518. DOI 10.1088/2053-1591/ad5818, 24 June 2024, ISSN: 2053-1591, [**IF: 1.8, Scopus and WoS, 'Q2', Co-Author**], *https://iopscience.iop.org/article/10.1088/2053-1591/ad5818/meta.*

13. Seba, Adisu Mulu, Ketema Adere Gemeda, and **Perumalla Janaki Ramulu**. "Prediction and classification of IoT sensor faults using hybrid deep learning model." *Discover Applied Sciences* 6, no. 1 (2024): 9. DOI: https://doi.org/10.1007/s42452-024-05633-7, 20 January 2024, Electronic ISSN-3004-9261 [**IF: 2.8, Scopus and ESCI, Co-Author**], *https://link.springer.com/article/10.1007/s42452-024-05633-7.*

14. Reddy, P. Praveen Kumar, Chinmaya Prasad Padhy, and P. Janaki Ramulu. "AA5052-PVC-AA5052 (Al-PVC-Al) Sandwich Sheets Forming Analysis Through In-Plane Plane Stretching Tests." *The Scientific World Journal* 2024, no. 1 (2024): 5117746. 08 March 2024, ISSN:1537-744X, [**IF: --, Scopus and PubMed, Corresponding-Author**], DOI: *https://doi.org/10.1155/2024/5117746, https://onlinelibrary.wiley.com/doi/full/10.1155/2024/5117746.*

15. Reddy, Praveen, Chinmaya Prasad Padhy, and **Perumalla Janaki Ramulu**. "Anisotropy effects on the tensile properties of AA5052 and AA5052-PVC-AA5052 sandwich sheets." *Materials Testing* 66, no. 1 (2024): 137-144. ISSN: 2195-8572, [**IF: 2.4, Scopus and WoS, 'Q2', Corresponding-Author**], DOI: https://doi.org/10.1515/mt-2023-0260. *https://www.degruyter.com/document/doi/10.1515/mt-2023-0260/html.*

16. Wordofa, Tesfaye Negash, **Janaki Ramulu Perumalla**, and Abhay Sharma. "An artificial intelligence system for quality level–based prediction of welding parameters for robotic gas metal arc welding." *The International Journal of Advanced Manufacturing Technology* 132, no. 7 (2024): 3193-3212. ISSN: 0268-3768, 08 April 2024, [**IF: 2.9, Scopus and WoS, 'Q1', Co-Author**], DOI: https://doi.org/10.1007/s00170-024-13518-7 *https://link.springer.com/article/10.1007/s00170-024-13518-7.*

17. Rao, Jeevan, S. Singh, **P. Janaki Ramulu**, Thiago F. Santos, Caroliny M. Santos, M. R. Sanjay, Indran Suyambulingam, and Suchart Siengchin. "Effect of chemical treatment on physio-mechanical properties of lignocellulose natural fiber extracted from the bark of careya arborea tree." *Heliyon* 10, no. 5 (2024). February 21, 2024, ISSN: 2405-8440, [**IF: 3.4, Scopus and PubMed, 'Q1', Co-Author**], DOI: https://doi.org/10.1016/j.heliyon.2024.e26706, *https://www.cell.com/heliyon/fulltext/S2405-8440(24)02737-3.*

18. Subbian, V., H. Sandeep, K. A. Jayasheel Kumar, R. Suthan, Ananda Mohan Vemula, Chaithanya Kalangi, **Perumalla Janaki Ramulu**, and Dereje H. Georgis Tefera. "Dry Sliding Wear Behavior of Copper Matrix Composites Enhanced with TiO2 and MoS2 Hybrids." *Advances in Materials Science and Engineering* 2024, no. 1 (2024): 4384178., ISSN:1687-8434, 16 January 2024, [**IF:--, Scopus, Corresponding-Author**], DOI: https://doi.org/10.1155/2024/4384178, *https://onlinelibrary.wiley.com/doi/full/10.1155/2024/4384178.*

19. Rao, H. Jeevan, S. Singh, **P. Janaki Ramulu**, Indran Suyambulingam, M. R. Sanjay, and Suchart Siengchin. "Isolation and characterization of a novel lignocellulosic fiber from Butea monosperma as a sustainable material for lightweight polymer composite applications." *Biomass Conversion and Biorefinery* (2023): 1-13. ISSN 2190-6815, 21 July 2023, [**IF:3.5, Scopus and SCEI, 'Q1', Corresponding-Author**], DOI: https://doi.org/10.1007/s13399-023-04631-w, *https://link.springer.com/article/10.1007/s13399-023-04631-w.*

20. Desta, Tariku, Devendra Kumar Sinha, and **Perumalla Janaki Ramulu**. "Mechanical Behavior and Wear Characteristics of a Conform Extruded C18150 (Cu-Cr-Zr Alloy)

Rod." *Journal of Engineering* 2023, no. 1 (2023): 8487824, ISSN 2314-4904, 27 September 2023, [**IF: 1.7, Scopus and WoS, 'Q1', Corresponding -Author**], DOI: https://doi.org/10.1155/2023/8487824, *https://onlinelibrary.wiley.com/doi/full/10.1155/2023/8487824*.

21. Jiru, Muktar Abdella, Ketema Adere, T. Gopi Krishna, and **Janaki Ramulu Perumalla**. "An Improved Switch Migration Method-Based Efficient Load Balancing for Multiple Controllers in Software-Defined Networks." *Journal of Cases on Information Technology (JCIT)* 25, no. 1 (2023): 1-21. ISSN: 1548-7717, [**IF: 1.0, Scopus and WoS, 'Q1', Corresponding-Author**], DOI:10.4018/JCIT.326136, *https://www.igi-global.com/article/an-improved-switch-migration-method-based-efficient-load-balancing-for-multiple-controllers-in-software-defined-networks/326136.*

22. Desta, Tariku, Devendra Kumar Sinha, and **Perumalla Janaki Ramulu**. "Optimization of Deformation Behaviors during Continuous Forming Extrusion of C18150 Copper Alloy through Response Surface Methodology." *Journal of Optimization* 2023, no. 1 (2023): 6682884. ISSN:2356-752X, [**IF: 1.0, Scopus and WoS, Corresponding-Author**], 31 August 2023, DOI: https://doi.org/10.1155/2023/6682884 *https://onlinelibrary.wiley.com/doi/full/10.1155/2023/6682884*

23. Wordofa, Tesfaye Negash, and **Perumalla Janaki Ramulu**. "Gas metal arc welding input parameters impacts on weld quality characteristics of steel materials a comprehensive exploration." *Manufacturing Technology 2023, 23(3):366-379*. June 22, 2023, ISSN:1213–2489, [**IF: --, Scopus and WoS, Corresponding-Author**], DOI: 10.21062/mft.2023.046. https://journalmt.com/artkey/mft-202303-0016_gas-metal-arc-welding-input-parameters-impacts-on-weld-quality-characteristics-of-steel-materials-a-comprehensi.php.

24. Robson Balcha, Bhaskaran J, **Perumalla Janaki Ramulu**, Belay Brehane Tesfamariam, (2023), Mechanical behaviour Assessment of Banana fibres reinforced polymeric composite with Aluminium-powder filler. Jordan Journal of Mechanical and Industrial Engineering 17, no. 2 (2023), 17, Number 2, June. 2023, ISSN 1995-6665, Pages 269–279. [**IF: --, Scopus and WoS, Corresponding-Author**], DOI: https://doi.org/10.59038/jjmie/170210. https://jjmie.hu.edu.jo/vol17/vol17-2/10-JJMIE-296-22.pdf

25. Ravindra, M. Rajesh, K. Dilip Kumar, Mamunuri Sailender, G. Pathalinga Prasad, N. Nagaraj, and **Perumalla Janaki Ramulu**. "Effect of boron carbide particles addition on the mechanical and wear behavior of aluminium alloy composites." *Advances in Materials Science and Engineering* 2023, no. 1 (2023): 2386558. ISSN:1687-8434, 25 April 2023, [**IF: --, Scopus, Corresponding-Author**], DOI: https://doi.org/10.1155/2023/2386558. https://onlinelibrary.wiley.com/doi/full/10.1155/2023/2386558.

26. Bency, P., M. Anish, V. Jayaprakash, J. Jayaprabakar, Ekrem Yanmaz, Nivin Joy, and **Perumalla Janaki Ramulu**. "Comparative Assessment of Compression Strength of

Solid Biobriquette using Different Binding Materials." *Journal of Nanomaterials* 2023, no. 1 (2023): 3685782. 26 April 2023, ISSN:1687-4110, [**IF: --, Scopus, Corresponding-Author**], DOI: https://doi.org/10.1155/2023/3685782, https://onlinelibrary.wiley.com/doi/full/10.1155/2023/3685782

27. Gebremeskel, Tewelde Gebremedhin, Ketema Adere Gemeda, T. Gopi Krishna, and **Perumalla Janaki Ramulu**. "DDoS attack detection and classification using hybrid model for multicontroller SDN." *Wireless Communications and Mobile Computing* 2023, no. 1 (2023): 9965945. 23 June 2023, ISSN:1530-8677, [**IF: --, Scopus, Co-Author**],DOI: https://doi.org/10.1155/2023/9965945, *https://onlinelibrary.wiley.com/doi/full/10.1155/2023/9965945*

28. Alagarsamy, Manjunathan, S. R. Barkunan, N. Jayapal, A. Murugan, P. Muralikrishnan, and **Perumalla Janaki Ramulu**. "Reinforcement of nanocellulose as green agent in the electronic applications associated with the composites of polymer matrix." *International Journal of Polymer Science* 2023, no. 1 (2023): 9645190. ISSN:1687-9422, 19 April 2023, [**IF: 3.4, Scopus and WoS, 'Q2' Corresponding-Author**], DOI: https://doi.org/10.1155/2023/9645190, *https://onlinelibrary.wiley.com/doi/full/10.1155/2023/9645190*

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International and National Conferences papers

National Conferences

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2. **Perumalla Janaki Ramulu**, Melesse Workneh, Tariku Desta, Esmael Adem Participated and Presented a paper on "AI and its infusion in the Manufacturing Sector Sustainability" in National Research Symposium on "Research and Technology for Building Green Economy", May 2024 at Adama Science & Technology University (ASTU), Adama, Ethiopia.

3. Amirela Siraji, Tsegaye Bekele, **Perumalla Janaki Ramulu,** Habtamu Beri, P. Venkateswar Reddy, Numerical Simulation on the effect of process parameters on Earing defect of AA5754-O alloy through Deep Drawing process, 1st National Research Conference on Recent Advances in Automotive and Manufacturing Technology/Engineering (RAAMT'21), held at Ethiopian Technical University campus, Addis Ababa, Ethiopia on the days 30th June and 1st July-2021.

4. Tsegaye Bekele, **Perumalla Janaki Ramulu,** Habtamu Beri, Amrela siraji, Formability Analysis of Metal-Polymer Sandwich Composites using limit dome height simulations, 1st National Research Conference on Recent Advances in Automotive and Manufacturing Technology/Engineering (RAAMT'21), held at Ethiopian Technical University campus, Addis Ababa, Ethiopia on the days 30th June and 1st July 2021.

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Academic Projects

PhD:

Title: **"Forming behavior of friction stir welded sheets made of AA 6061-T6 alloy"**

Duration: July 2008 to August 2012 (*Theis submitted on September 2012 and Awarded on 4th February, 2013*).

Organization: Indian Institute of Technology (IIT) Guwahati, Indian Institute of Technology (IIT) Mumbai, Indian Institute of Science (IISc) Bangalore.

M.Tech:

Title: **"Effects of forging parameters on Microstructure and mechanical properties of Low alloy steel".**

Duration : July 2003 – July 2004
Organization : RDCIS / Steel Authority of India Ltd

B.Tech:

Title**: "Design and fabrication of pressure bag molding using FRP technique"**
Duration : Dec'00- May'01.

Team size : 4
Organization : Saint-Gobain Vortex India Pvt. Ltd., Hyderabad.

Research Experience

PhD

- PAM STAMP 2G, sheet metal forming analysis package
- Friction stir welding on ETA stir welding machine
- Analysis of formability tests through GOM made optical strain analyzer by offline and online measurement system
- Mechanical Tests on INSTRON-8801 machine

M.Tech

- Optical micro scope analysis
- X-ray diffraction
- Mechanical tests like Tensile, Impact, Hardness

B.Tech

- Fabrication of FRP sheets

Courses Taught and Assisted

Teaching Assistant work (During PhD at IIT Guwahati)

Subject	Class	Year	Frequency
Advanced material processing	PG	2009-2011	2
Physics of Manufacturing	PG	2009-2011	2
Advanced material processing lab	PG	2009-2011	2
Advanced manufacturing lab	UG and PG	2008-2010	4
CAD Lab	UG and PG	2008 & 2012	2

Courses Taught till date (UG, PG and PhD)

S.No	Subject	Class	Year	Frequency
1	Mechanical Vibrations	PG	2012-13	1
2	Vibrations and Structural Dynamics	UG	2013-14	1
3	Plant Layout and Material Handling		2012-13	1
4	Machine Tools		2012	1
5	Design of machine members –I		2004- 2008	4
6	Design of machine members –II		2004- 2008	4
7	Thermal Engineering		2004-2008	4
8	Strength of materials		2006–2008 & 2014	4
9	Engineering Drawing		2005-2008	3
10	Engineering Mechanics		2006-2008, 2012, 2014	4
11	Finite element Methods		2007-2008, 2014-15	2
12	Management Science		2005-2006	1
13	Operational Research	PG	2006-2008, 2016	3
14	Engineering workshop	UG	2006-2008	2
15	CAD/CAM Lab		2006-2008	2

16	Production Technology Lab		2006-2008	2
17	Heat Transfer Lab		2004-2005	1
18	Machine Tools Lab		2012-2013	1
19	Basic Workshop Technology	UG	2015-16	1
20	Metal Forming Technology	PG	2015-16	2
21	Advanced Welding Technology		2015-17	2
22	Machine Tool Design		2015-16	1
23	Finite Element Methods in Manufacturing	PG & PhD	2016-18, 2018-23, 2023, 2024	7
24	Industrial Robotics	PG	2016-17	1
25	Metal Forming Analysis and Engineering	PG	2016-17	3
26	Optimization Techniques	PG	2016-17	1
27	Metal Forming Engineering	UG	2019-20	1
28	Advanced Mechanics of Solids	PhD	2017--20	3
29	Advanced Tool and Die Design	PhD	2017-2018	1
30	Computer Aided Engineering and Manufacturing	PG	2018, 2020, 2021	3
31	Numerical Methods	PG	2021	1
32	CAD/CAM	UG	2006, 2007, 2021	3
33	Mechatronics	UG	2021	1
34	Industrial Robotics and Automation	PhD	2022	1
35	Artificial Intelligence for Manufacturing Engineering	PhD	2022	1
36	Research Methodology	PhD	2023	1
37	Metal Forming processes and Analysis	PG	2023	1
38	Research Methodology and Design Experiment	UG	2023-24	1
39	Nueral Network and Deep Learning	UG	2024-25	1
40	Data Analytics	UG	2024-25	1
41	Deep Learning	UG	2025-26	1

Dissertations (PhD)/ Theses (PG)/ Projects (UG) [Major and Minor]

PhD Guided

S.No	Year of registration	Project Title	Scholar	Institute	Role	Remark
1	2016	Assessment of Product Sustainability through different Optimization Techniques	Melesse	ASTU	Co-Advisor	**Completed 16.12.2019**
2	2019	Investigation On Deformation Behaviours of Non-Ferrous Alloys Through Continuous Forming Extrusion	Tariku Desta	ASTU	Main-Advisor	**Completed 19.06.2023**
3	2018	Synthesis and Characterization Of Natural Biodegradable Nano Composite Materials For Aircraft Panels	M. Jeevan Rao	AU, New Delhi	Co-Advisor	**Completed 03.12.2023**
4	2018	Prediction, Optimization and Automatic Generation of Robotic Gas Metal Arc Welding Process Parameters for AISI SAE 4130 Alloy Steel	Tesfaye Negash	ASTU	Co-Advisor	**Completed 27.06.2024**
5	2023	Additive Manufacturing	Kidu	ASTU	Co-Advisor	Completed **16.10.2025**

PG Projects Guided (M. Tech/MSc)

S.No	Year	Project Title	PG Scholar	College *
1	2014	Design and analysis of semi active system of Magneto-rheological damper for vibration controlling automotive	Vijay Kumar	VCE
2	2014	Formability Studies on Aluminum Alloy Sheets through Deep Drawing Process	U. Pranavi	VCE
3	2014	Effect of different experimental parameters observation through simulation of tailor welded blanks	Aruna Jyothi	HITS
4	2014	Investigation of the Deep Drawability of Aluminum Sheets by Finite Element Numerical Simulation	Mounika Sharma	HITS
5	2014	Investigation of forming behavior prediction of different steel grade materials using numerical simulation	Sudhir Chakravorthy	HIT
6	2014	Springback analysis of different steel grades	Salkin Bhasha	HIT
7	2014	Multi-hole extrusion process analysis	Yadagiri	HIT
8	2015	Effectible parameters of deep drawing processes for different anisotropic materials	P. Venkateswar Reddy	VCE
9	2015	Design and fabrication of equal channel angular extrusion process analysis for non-ferrous alloys	A.Lavanya	VCE
10	2015	Design and analysis of semi active system of Magneto-rheological damper	P. Tirupathi	VCE
11	2015	Modelling Large Scale Sequestration	M. Anil Kumar	TKRCET
12	2015	Hydrodynamics of a Fish	Ch. Lavanya	TKRCET
13	2015	Experimental study on Springback behavior of non-ferrous sheets	Shaik Noor Mahammed	TKRCET
14	2015	Numerical methods for advanced aerodynamic materials	J. Ravi Varma	TKRCET
15	2017	Formability Analyses of Single Point Incremental on Aluminum (1050) Sheet Forming Processes	Dawit Desselegn	ASTU
16	2017	Root cause investigation and improvement on frequent wear, breakage of Fibrizer hammer	Tesfaye Mathewos	ASTU
17	2017	Enhanced maintenance management for productivity improvement in Ethiopian garment industry	Yamisrach Dehenanew	ASTU
18	2017	Production of square bar from Aluminum scraps through Friction stir extrusion	Mengistu	ASTU
19	2017	Design and development of fixtures for lathe machine to perform milling operations	Tigist	ASTU
20	2018	Optimization of Process Parameters in Plastic Injection Molding Using Design of Experiment Method; Case Study on Ameze Plastic Factory	Minyahil bezabih	ASTU
21	2018	Fabrication and Experimental analysis of Banana fibers with addition of Aluminum-powder hybrid Reinforced polymer composite for Automotive Body	Robson Balcha Wakeyo	ASTU
22	2018	Formability Evaluation of AHSS Under in-plane Stretching Condition	Dereje Hgeorgis	ASTU
23	2018	Fabrication and Experimental investigation of mechanical properties and friction coefficients for Aluminum hybrid matrix composite (Al/SiC-bagasse fly ash) as a friction material for disc brake application.	Getachew Gashaw	ASTU
24	2018	Springback Experimental Analysis of JIS grade Steel Sheet Material under Various Heating Conditions	Kemal Ramato	ASTU
25	2018	Fabrication of Hexagonal Bar from Scrap of Aluminum Alloy by	Gizaw Yohannes	ASTU

		Milling Machine Through Frictional Stir Back Extrusion		
26	2018	Stretch Formability of non-ferrous metal under Different conditions	Manaye Mathews	ASTU
27	2019	Composite pipe design	Bekele	ASTU
28	2019	Robotic Arm for Arc welding	Melese	ASTU
29	2019	FSW welding for dissimilar material	Firaol	ASTU
30	2020	Characterization and Parametric Optimization of EN-10149-2 Steel Welded Joints fabricated by MIG Welding	Behredin Kedir	ASTU
31	2020	Development of An Improved Pedal Powered Water Pump	Daba	ASTU
32	2020	Experimental analysis and microstructure investigation of Aluminum alloy and polypropylene dissimilar joints made by friction stir welding process	Redwan	ASTU
33	2020	Experimental Investigation on Mechanical Properties of Sisal/palm Fiber with Nano Clay Hybrid Reinforced Polymer Composite	Samson	ASTU
34	2020	Enhance the multi-hole extrusion process capability of AA6xxx through different process parameters and conditions	Yohannis	ASTU
35	2020	Numerical, Experimental and Optimization Investigation of single point increment forming of Titanium Alloy Components	Assefa	ASTU
37	2021	Experimental and Numerical Simulation on the effect of process parameters on Earing defect of different sheets through Deep Drawing process	Amirela Siraji	ASTU
39	2021	Formability Analysis and Simulation of Metal-Polymer Sandwich Composites Considering the Adhesion Strength	Tsegaye Bekele	ASTU
40	2024	Optimization of the Zinc Coating on Pre-Painted Galvanizing Steel Sheet as Per Ethiopian Standard	Dejene Legesse Meleketsadik	ASTU

*TKRCET-TKR College of Engg. & Tech., VCE-Vardhaman College of Engineering, Hyderabad; Holy Mary Institute of Technology Hyderabad; ASTU-Adama Science and Technology University

UG projects Guided (Majored):

S.No	Year	Project Title	Team	College
1	2006	Product and Mould Design of Electrical Connectors	S. Uday Kumar	RCE
2	2006	CNC Programming and Manufacturing of Extrusion Die	P. Rakesh Reddy; R. Raj Mohan; Md. Anwar	RCE
3	2006	Manufacturing of Milling Head Using CNC Machines	N. Ravinder	RCE
4	2006	Developing CNC Programming and Manufacturing of MBT Link Using 3-axis CO_2 Laser Cutting Machine	L. Prashant Goud; C. Balaji	RCE
5	2006	Automation of The Briquetting System for The Production of Reactor Grade Zirconium Sponge	K. V. Gagannath	RCE
6	2006	Custom Macro Programming for Manufacturing A Missile Component on A Vertical CNC Milling Machine	M. V. Pavan Kumar; A. Srikanth Reddy; S. Laxmi Ganapathi; L. Satyanarayana Reddy	RCE
7	2006	Stress and Model Analysis of SKD Liquid Fuel/ Autornizing air (LF/AA) Of 70MW gas turbine using FEA	D. Ram Prasad Rao; P. Prabhakar Reddy; P. Venkat Reddy	RCE
8	2007	Manufacturing of Mould for A Plastic Impeller	K. Anurag; G. Sri Venkata Naga Sai; M. Chaitanya; P. Rajesh	NIET
9	2007	Operating Principles and Performance of Gas Turbines	K. Aditya	NIET
10	2007	Solar Brake Van Lighting System	A. Madhavi; K. Saivachan; P. Pavan Raja;	NIET

			R. Natraj	
11	2007	Performance Evaluation of CI Engine with Combi-Bio-Diesel	G. Arun Kumar; G. Rama Krishna Reddy; MastaanRasool Khan	NIET
12	2008	Design of Rotating Fixture for The Flight Vehicle	B. Abhinash; Md. Imran Khan; M. Ravi Kumar	NIET
13	2008	Manufacturing Process Optimization of Missile Component	G. Ravi Kiran; K. Sai Krishna; G. Sandeep Kumar	NIET
14	2008	Manufacturing of Die Used in The Extrusion Process and Its Cost Analysis	M.Subash; Sripad Raj Purohit	NIET
15	2008	Study of Cooling System and Its Failures	Nishant; V. Malla Reddy	NIET
16	2008	Development of A Practical Online Helpdesk (OHD) For the Facilities in The Campus	P.V. AgasthyaRohit	NIET
17	2008	Computer Controlled Moving Robotic Arm	M. Sreevasavi; Ch. Srilatha;P. Vijetha; N. Nishitha	NIET
18	2008	Deep Knee Bend analysis	K. Karan Kumar; Rakesh Kulkarni; K. Rakesh; M. Ravi Kiran Reddy; I. Srikanth Reddy	NIET
19	2008	Finite Element Analysis of a Petrol Tank Chassis Frame	S. Narender	NIET
20	2008	Modeling of An Extrusion Die and Development of Software to Estimate Force Required in Extrusion Process	Srinivas. D; Suman. B Sateesh Kumar. B; Raja Sekhar. P	NIET
21	2008	Effective thermal Design of Methodology and Cooling Techniques for Electrical Systems	K. Yashwanth; K. Naresh	NIET
22	2008	Design and Development of Trinity Blade System and Test of its Vertical Lift Characteristics	Sirish Bhattacharya; Daya Sindhu Gupta; K. Sravan Kumar; Ch. Siva Kumar	NIET
23	2013	Design and Analysis of Pressure Vessel as per IS 2825 for Testing of Cantister components	S. Ravinder; SV. Vijay Kumar S. Prakash; S. Raju	VCE
24	2013	Machining of Tungsten Heavy Alloy under Cryogenic Environment	T. Kartik; P. Swaroop; K. Sadvik P. Raju	VCE
25	2014	Design and Fabrication of Extension of IC Engine	Sai Charan; Sai Nag; Sruthi Sushmitha; Sravan Manoj; Vinay Kumar; Rasheed	VCE
26	2014	Design and Fabrication of Zepline model	Sai Kumar; Anvesh; Roja; Shanti; Sherlin	VCE
27	2014	Process Design for multihole extrusion	NVV Narasimha Charyulu, Dheeraj Reddy, Anusha, MadhuBabu	VCE
28	2014	Design and Fabrication of hand grinding working model	Yeswant, Slaman Khan	VCE
29	2015	Spring back analysis of different steel grades	SaiKiran Reddy, Durga Srnivas, Yeswanth, Pavani	VCE
30	2015	Walking Robo design	NVV Narasimha Charyulu, Dheeraj Reddy, Anusha, MadhuBabu	VCE
31	2015	Design of Sensing Robo	Yeswant, Slaman Khan,	VCE

			Udaya Bhaskar, Sirisha	
32	2016	Design of Electrical power generation by roller mechanism	Murid Melis, Murtesa Dabesa, Saddam Jemal, Nebiyou Asfaw	ASTU
33	2016	Modification of Design in fabrication of sheet metal bending and beading machine	Henok Gashaw, Melkamu Diressa, Kenaw Melkamu, Sisay Bekele, Tefalun Tesgaye	ASTU
34	2016	Design and manufacturing automatic loading and unloading machine for horizontal electric heat-treatment furnace	H/M Baylegegn, Dejen Yamane, Demeke Shimeils, Jonson Yirdaw, Haftomu Hagos	ASTU
35	2017	Design and Analysis of Automatic Sheet Metal Cutter and Feeder	Dejene Mesfin, Dejene Guta, Dawit Geremew, Henok Wujira, Milkessa Temesgen	ASTU
36	2017	Cow Dung Mixer Design	Abel Zedingle, Addisu Metaferia, Adugna Dinku, Alazar Hagos, Getachew Tefera	ASTU
37	2020	Design And Prototype of Water Pumping System Using Wind Energy	Ayele Gebisa, Nathan Eshetu Natnail Addis, Nebiyu Chalachew Nejat Mohammed	ASTU
38	2020	Design and Simulation of Double Telescopic Aluminum foldable ladder	Debi Doja, Daniel Herpasa Desale Gebeyaw, Chala Merga Adugna Kuba	ASTU
39	2021	Design and modeling of pneumatic sheet metal shearing machine	Haymanot Adamu, Sisay Diriba Yemisrach Meles, Yordanos Zelalem	ASTU
40	2021	Manually Operated Eco-Friendly Road and Floor Dust Cleaning Machine	Rebira Negash; Seyfedin Seid; Israel Tilahun; Nedi Tajo; Mohammed Seid	ASTU
41	2022	Design and Modelling of Manually Operating 'Enset'scrapping Machine	Abraham Dereje, Markos Wube Hasen Kemal, Mesoud Muhammed, Abel G/Medhin	ASTU

*RCE-Royal college of Engineering, Medak; NIET-Nizam Institute of Engineering and Technology, Hyderabad; VCE-Vardhaman College of Engineering, Hyderabad; ASTU-Adama Science and Technology University

UG Projects (minor):

S.No	Year	Project Title	Team	College
1.	2012-13	A study on Injection Molding	B. Raju	VCE
2	2013-14	A study report on Turbocharger	B. Shravan Kumar	VCE
3	2013-14	Study on Manufacturing of Different Types of Plastic Molds	G.Sai Charan, K.Vinay Kumar	VCE
4	2013-14	A Study report on Gear Box	J.Sushmita	VCE
5	2014-15	Design and Analysis of Multi Hole Extrusion Process	NVV Narasimha Charyulu, Dheeraj Reddy, Anusha, MadhuBabu	VCE

6	2014-15	Analysis of Dual Bell Rocket Nozzle	SaiKiran Reddy, Durga Srnivas, Pavani	VCE
7	2023-24	Additives Manufacturing Impacts through AI Systems	Firaol Kibebew, Kide Gebrehiwet, Natnael Demeke, Natnael Kibatu Robel Argaw	ASTU
8	2023-24	Analytical Model and Experimental Testing of The Soft foot	Geda Shiferaw, Nigusssie Bekele, Adugna Dinkisa, Yonas H/michael	ASTU
9	2023-24	Finite element analysis of mechanisms in machines	Haileeyesus Fikadu Daniel Basazinew Bereket Tuji, Aser Mesfin	ASTU
10	2023-24	Modeling and Simulation of Sheet Metal Forming	Segni Yohanes, Samuel Merga, Bereket Solomon, Isihak Abirham, Lalisa Diriba	ASTU
11	2023-24	The Impact of Technology on Mechanical Engineering	Beshar Bashir, Amin Ahmed, Chagkouth Dik Abdulhakim Zinab	ASTU
12	2023-24	Finite Element Analysis Of Connecting Rod	Addisu Gebiru, Meron Awoke, Million Teklehaymanot, Mintesinot Kasa, Mintesinot Belayneh	ASTU
13	2023-24	Parametric Optimization of Lathe Machine Process Parameters Using Taguchi Method	Yohanes Shimelis, Aregash Daba, Biruk Hussen, Eldana Surafel	ASTU
14	2023-24	Evolution of military aircrafts	Tedila Zeleke, Ephrem Mulatu, Eskender Getu, Noh Betru	ASTU
15	2023-24	Biodiesel production analysis	Yoseph mezgebe, Ephrem Melese, Edomias salem, Abiyu Asmamaw	ASTU
16	2023-24	Green technology evolution	Kamil Kalid, Amir Nuri, Esmael Baheru, Tajudin Mohammed	ASTU
17	2023-24	Modeling and Analysis of die casting process	Samuel Dufera, Samuel Fikadu, Abenezer Aljube Gutema Trjuman, Zelalem Mihret	ASTU
18	2023-24	Modeling and Printing of Polymer Products Using 3D Printing	Biniam mulugeta, Dawit Getahun, Helary kasahun Kalkidan yimer	ASTU
19	2023-24	Biodiesel Engine Process Analysis	Azarias Shibru, Girum Tesfaselasie, Kibralem Megersa, Surafel Taye	ASTU
20	2023-24	Parameters Optimization Of Arc Welding Process To Weld Steel Plates	Esmael Keder, Eyob Asfaw, Jemil Sultan Kaleab Tadesse	ASTU
21	2023-24	Main parameters in IC engines and their process conditions	Wasihun Wubishet, Eyob Wondimun, Askenaw Shiferaw, Ermiyas Teshome, Fetinachew Asmare	ASTU
22	2023-24	Advancement on renewable energy	Epherem Eyasu, Eyosiyas	ASTU

			Daniel	
23	2023-24	Lean Manufacturing Principle for Small Scale Industries	Habtamu Asmera, Hundaol Girma, Tarekegn Mare	ASTU
24	2023-24	Analysis of Robot Mechanisms	Amanuel Abera, Elias Amare, Kaleab Adane Natan Wake	ASTU
25	2023-24	Modeling And Simulation of Forging Process	Natnael Tadesse, Yonatan Teshale, Robera Tefera Kaleab Astekaklew	ASTU
26	2023-24	Solar Enrgy in Agricultural Unit	Fraol Taye, Abel Kassahun Natnael Samuel, Ikram Muhibu	ASTU
27	2023-24	Parameters optimization of friction stir welding process to weld Al plates	Beamlak Teshome, Dagim Demeke, Dereje Bazezew Yeabsira Biruk, Simbo Abel	ASTU
28	2023-24	Smart System Impact on Productivity	Sena Fenta, Naol Mengistu Nathnael Andualem, Oliyad Tesfaye	ASTU
29	2023-24	Industrial Revolution and Their Impact	Mekibib Emawayih Taressa Chala, Habtamu Huruma, Firde Temtime	ASTU
30	2023-24	Parameters optimization of laser welding process to weld steel plates	Tesfaye Tadesse, Kaleab Teshome, Yohannis tedi Yosef Elias	ASTU

VCE-Vardhaman College of Engineering, Hyderabad, ASTU-Adama Science and Technology University

Research /Technology Transfer/Community Service Projects undertaken

1. "*Design and Fabrication of Sanitizing Tunnel for Disinfection of Human Body*" by Adama Science and Technology University, Adama, Ethiopia, Budget: 149,516.00ETB. (**Completed**).

   Role: PI

2. "ASTU Center of Excellence Website (ASTU CoE's Website)" by Adama Science and Technology University, Adama, Ethiopia, Budget: 245,000.00ETB (**Completed**).

   Role: Co-PI

3. "*Development of Hybrid Metal Matrix Composites Based on Cu- TiC -SiC for Different Engineering Applications*" by Adama Science and Technology University, Adama, Ethiopia, Budget: 245,000.00ETB (**Completed**).

   Role: Co-PI

4. *"Design and Fabrication of Bi-axial Tensile Machine for Anisotropic Materials Testing"* by Ministry of Science and Technology and Adama Science and Technology University, Adama, Ethiopia, Budget: 778,600.00 ETB. (**Under Pending**).

   Role: PI

Extra-Curricular Activities

- Co-ordination for Community service pedal hand wash project in Adama, 2020.
- Cricket Captain for Faculty team of Dept. of Mechanical Engineering at Vardhaman College of Engineering, Hyderabad from 2013-2015.
- Cricket Captain for PhD team at IIT Guwahati from 2010-2012
- PhD representative in Mechanical Engineering Student Association (MESA), at IIT Guwahati from 2009-2010.
- Manufacturing Student representative, National Institute of Foundry and Forge Technology, 2003-2004.
- PG Mess manager, National Institute of Foundry and Forge Technology, 2003-2004.
- Vice-president for student activates, Vijay rural Engineering College, Nizamabad, 1999
- Anti-ragging committee chairman, Vijay rural Engineering college, Nizamabad, 1998-2000.
- Cultural events supervisor, Vijay Rural Engineering College, Nizamabad, 1999-2000.

Academic excellence

- School Topper in SSC (1994)
- College 5^{th} rank during B. Tech in 2001
- 3^{rd} topper in the class during M. Tech at NIFFT (2002-2003)
- Batch Topper during PhD course work at IIT Guwahati (2008)

References

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Declaration: I hereby declare that the information given above is true to the best of my knowledge and belief.

Yours Sincerely,

(Perumalla Janaki Ramulu)