

Name: K. Aruna Prabha
Designation: Assistant Professor
Department: Mechanical Engineering
Email ID: arunaprabha_k@vnrvjiet.in



Experience (in years): Teaching: 9 Years **Research:** 1 **Others (If any, Specify):** --

1. Educational / Technical qualifications:

S.No.	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	UG: B.Tech	2003	Mechanical Engineering
2	PG: M.Tech.	2010	Advanced Manufacturing Systems
3	PhD	2020	MACHINING (Tool condition Monitoring)

2. Teaching and Learning:

2.1. Teaching Interests:

Machine tools, Production Technology, Special Manufacturing processes, Engineering Drawing, Concurrent Engineering, Simulation Modelling of Manufacturing Systems, Design for Manufacturing, Engineering Metrology, Instrumentation & Control Systems, Metrology lab, Workshop Lab, Fluid mechanics Lab, Theory of metal cutting

2.2. Novel Teaching & Learning Techniques adopted:

VNR Lab Protocol, POGIL, LBD

2.3. Involvement in curriculum updating / Design:

- Modified the curriculum of Product lifecycle management, Nanoscience and Nanotechnology, Surface Modification Techniques for UG course.
- Modified the curriculum of Concurrent Engineering and Product life cycle Management for PG course.

3. Co-curricular and Extra-Curricular Activities:

3.1. Interests and Hobbies:

- Singing
- Gardening

3.2. CCA/ECA Organized:

Nil.

3.3. CCA/ECA participated:

- Was a member in stage decoration committee for events in Institute technical fest "Convergence" and cultural fest "Sintillashunz".

3.4. Counselling and Mentoring Activity:

- Mentor for IV B.Tech Mechanical Engineering students.

3.5. Committees involved in:

Department level: LAB INCHARGE FOR MACHINE TOOLS LAB,

NBA Criteria Member, Womens project Team

4. Conference / Workshop / Seminar / Guest Lectures:

- 4.1 Conducted: 2
4.2 Attended: 18

5. Academic Contribution and Research & Consultancy:

- 5.1. Invited Lectures: Nil
5.2. Articles / Chapters published in Books: Nil
5.3. Books published as single author or as editor: Nil
5.4. Projects Guided:

- a) UG: 4
b) PG: Major – 3; Mini – 4

5.5. Research Interests:

- Advanced Machining Techniques, 3D Printing and Production Technology.

5.6. Ph.D students: Not Applicable

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

5.7. Papers published in reviewed Journals: 11

1	Design, Analysis and Manufacturing of Planetary Gear Used in Clock Mechanism Using Rapid Prototype Technique	K. Shambhavi, K. Aruna Prabha	The International Journal of Science & Technoledge Volume 3, Issue 6, June 2015, Pp158-160. ISSN 2321-919X
2	3D Printing of planetary gear which is used in clock mechanism	K. Sambhavi, K. Aruna Prabha	International Journal of Innovative, Research in Science, Engineering & Technology ISSN (online) – 2319-8753-2347-6710 Volume 4, Issue 7, Pp 5174-5178, July 2015
3	Design, Analysis and Manufacturing of Planetary Gear System by Using Rapid Prototyping Technique used as Clock Mechanism	K. Sambhavi, K. Aruna Prabha	International Journal for Scientific Research & Development , ISSN (Online): 2321-0613 Volume 3, Issue 7, Pp 43-47 July 2015

4	Condition Monitoring Of Turning Process Using Infrared Thermography Technique – An Experimental Approach	Balla Srinivasa Prasad K. Aruna Prabha . P.V.S. Ganesh Kumar	International Journal on Infrared Physics & Technology, Volume 81C, Pp 137-147 SCI/ SCOPUS
5	Comparative Study Of Wear Patterns Of Both Coated And Uncoated Tool Inserts In High Speed Turning Of EN36 Steel	K. Aruna Prabha, Dr. Balla Srinivasa Prasad N. Srilatha	Material Today proceedings 2018. SCOPUS INDEXED
6	Design and Development of Turbine Driven Wood Turning Lathe for Rural Development	Abhimanyu Nandhi, Aruna Prabha K	International Journal Of Control Theory And Applications SCOPUS INDEXED
7	A Review on Ball, Roller, Low Plasticity Burnishing Process	K. Aruna Prabha B. Srinivasa Prasad.	Materials Today Proceedings, Volume 18, Issue 7, Pp 3001, October-19 SCOPUS INDEXED
8	Machining Of Steam Turbine Blade On 5-Axis CNC Machine	Ch. Priyadarsini, V.S.N. Venkata Ramana, K. Aruna Prabha, S. Swetha	Materials Today Proceedings, Volume 18, Issue 7, Pp 5087, October-19 SCOPUS INDEXED
9	Effect of zirconium oxide nanoparticles on physical, structural and magnetic properties of Bi ₂ O ₃ -B ₂ O ₃ -MnO ₂ glasses	L Srinivasa Rao, C Sai Phani Kumar, K. Aruna Prabha, C.D. Naidu, P Raghavendra Rao	AIP Conference Proceedings 2269 (1), 030101, 2020 SCOPUS INDEXED
10	EVALUATION OF TENSILE PROPERTIES OF 3D PRINTED PETG SPECIMEN AS PER ASTM STANDARDS	PPK, S. Swetha, Priyadarsini Morampudi, K. Aruna Prabha	International Journal of Mechanical and Production Engineering Research and Development, 2020 SCOPUS INDEXED
11	Effect of ZnO nanoparticles on structure and magnetic properties of Li ₂ O-B ₂ O ₃ : TiO ₂ glasses	CSP Kumar, LS Rao, K. Aruna Prabha,	Ceramics International, 2020 SCI/SCOPUS INDEXED

		P R Rao	
12	3D-printing analysis of surface finish	P Morampudi, VSNV Ramana, K Aruna Prabha, S Swetha, A N B Rao	Materials Today Proceedings, Volume 43, Part 1, 2021, Pages 587-592 January 2021 SCOPUS INDEXED
13	A Review on Thin Film Production by Convectional and 3-D Printing Method	K. Aruna Prabha, S. Swetha, Priyadarsini Morampudi	Trends in Mechanical Engineering & Technology Volume 10, Issue 3

5.8. Papers presented at National / International Conferences: 8

S.No.	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Machining and analysis of steam turbine by 5-axis Machining	RAMCET VNR VJIET, India	National	January 10-11, 2011
2	Experimental Investigation on Heat Distribution for Condition Monitoring of a CNC machining Process using Infrared Thermography Technique	Dr. Balla Srinivasa Prasad, Aruna Prabha K.	International	26-27th October 2016
3	Prototyping a Bottle Blow Mold using FDM technique	K. Aruna Prabha, Dr. Balla Srinivasa Prasad.	National	Dec 22 nd – 23 rd 2017
4	Unconventional and 3-D printing methods for thin film production-A comparative study	S. Swetha, Dr. Chinmaya Prasad padhy, K. Aruna Prabha, Ch. Priyadarshini	National	Feburary 21 st -22 nd 2019
5	Evaluation Of Thermal Effects In Turning Processes: Numerical And Experimental Approach	Aruna Prabha Kolluri, Balla Srinivasa Prasad, Paruchuru Satya prasad	USA, ASME International Mechanical Congress And Exposition 2019	8 th to 17 th November 2019 SCOPUS INDEXED
6	Standardization Aspects Of Fracture Testing Of Bone And Bio-Material	Paruchuru Satya Prasad, Aruna Prabha Kolluri	USA, ASME International Mechanical Congress And Exposition 2019	8 th to 17 th November 2019 SCOPUS INDEXED

7	Minimum Destructive And Noninvasive Test Methods For Natural Materials	Paruchuru Satya Prasad, Aruna Prabha Kolluri	USA, ASME International Mechanical Congress And Exposition 2019	8 th to 17 th November 2019 SCOPUS INDEXED
8	Standardization Aspects Of Methods For Testing Of Engineered Biological-Tissue	Paruchuru Satya Prasad, Aruna Prabha Kolluri	USA, ASME International Mechanical Congress And Exposition 2019	8 th to 17 th November 2019 SCOPUS INDEXED
9	Modelling and Analysis of Shoulder Traction Surgery Kit	K Aruna Prabha, S Swetha, Priyadarsini Morampudi, CH Naveen Reddy	IOP Conference Series: Materials Science and Engineering	January 2021 SCOPUS INDEXED
10	Manufacturing of 3 D Shrouded Impeller of a Centrifugal Compressor on 3D-Printing machine using FDM Technology	K Aruna Prabha, P Sai Rohit, Sai Chand Nitturi, Bobba Nithin	IOP Conference Series: Materials Science and Engineering	January 2021 SCOPUS INDEXED

5.9. Sponsored research Projects: 1

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed
1.	Travel Grant UGC	UGC	2019-2020	Rs 2,33,000	Ongoing

5.10 Consultancy Projects: NIL

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed

6. Awards / Honors received:

Award title, "Distinguished Researcher in Advanced Manufacturing

Systems” Awarded by, “RULA Awards”
Powered by, “World Research Council”
& “United Medical Council” 26th February, 2019

7. Motto: Dont make things too complex try to make it simple