

HOD MECHANICAL PROFILE

Dr. S. RAMA RAO

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Educational Qualifications:

- **Ph.D.** on “Studies on electrochemical machining of Al/B₄C composites” in S.V. University, Tirupathi, under the guidance of Prof. G. Padmanabhan in April 2016.
- **M. Tech**, Design and Production Engineering (Machine Tools) full time, at National Institute of Technology (formerly known as REC) Warangal and obtained 71.9% in the year March 2003.
- **A.M.I.E** from Institute of Mechanical Engineers (India) and obtained 62.5% in the year 1999.
- **Diploma** in Mechanical Engineering from S.B.T.E.T. Andhra Pradesh at M.B.T.S. Government Polytechnic, Guntur and obtained 82.9% in the year 1995.
- **S.S.C.** from Board of Secondary Education, Andhra Pradesh at N.B.H.S., Ravipadu and obtained 75% in the year 1992.

Achievements:

- Acted as a “Session Chair” for the “International Conference on Mathematical Sciences in Engineering Applications” on 22nd -24th December 2017, Organized by Baba Institute of Technology and Sciences, Visakhapatnam.
- 100% pass in Engineering Drawing subject by I B.Tech I Sem Civil students in SVCET, Chittoor, for the academic year 2014-15.
- 100% pass in FMHM subject by II B. Tech I Sem EEE students in Narasaraopeta Engineering college, Narasaraopet, for the academic year 2010-11.
- Secured AIR-143 in GATE-2000 with 98.13 percentile (Mechanical)
- Secured AIR-257 in GATE-1999 with 97.54 percentile (Mechanical)

Administrative/Additional Responsibilities Held:

- **Head**, Department of Mechanical Engineering, Tirumala Engineering College, Narasaraopet, since 09-06-2018.
- **Vice-Principal**, Sai Tirumala NVR Engineering College, Narasaraopet, from 02-05-2016 to 05-05-2018.
- **Head**, Department of Mechanical Engineering, Sai Tirumala NVR Engineering College, Narasaraopet, from 02-05-2016 to 05-05-2018.
- **In-charge Principal**, VISIT Engineering College, Tadepalligudem, from 01-09-2012 to 28-02-2013.
- **Head**, Department of Mechanical Engineering, VISIT Engineering College, TadeplliGudem, from 01-06- 2012 to 30-04-2013.
- Coordinator, Entrepreneurship Development Cell, SVCET (Autonomous), Chittoor, for the academic years 2013-14 and 2014-15.
- Coordinator, SAEINDIA Students Chapter, SVCET (Autonomous), Chittoor, for the academic year 2013-14.
- Coordinator, Anti-Ragging committee, SVCET (Autonomous), Chittoor, for the academic year 2014-15.
- Member, Central Purchase Committee, SVCET (Autonomous), Chittoor, for the academic years 2013-14 and 2014-15.

Papers Published/Presented: 22

Journals: 18

1. **S. Rama Rao**, K. Murali Krishna and K. Vijayalakshmi, “Development of Expert System for an Unconventional Machining Process” *International Journal of Engineering Science Innovation*, Vol. 7, Issue 1, Pp: 40-49, 2018.
2. **S. Rama Rao** and G. Padmanabhan, “Parametric optimization in electrochemical machining using utility based Taguchi method”, *Journal of Engineering Science & Technology*, Vol. 10, Pp: 87-111, 2015.**(Scopus Indexed)**
3. **S. Rama Rao**, G. Padmanabhan, K. Mahesh Naidu and A. Rukesh Reddy, “Parametric Study for Radial Over Cut in Electrochemical Drilling of Al-5%B₄C_pComposites, *Procedia Engineering*, Vol. 97, Pp: 1004-1011, 2014.**(Scopus Indexed)**

4. **S. Rama Rao** and G. Padmanabhan, "Fabrication and Tribological Properties of Al-Si/B₄C Metal Matrix Composites" *International Journal of Surface Engineering and Interdisciplinary Materials Science*, Vol. 2, No. 1, Pp: 74-84, 2014.
5. **S. Rama Rao** and G. Padmanabhan, "Optimization of multiple-machining criteria in electrochemical machining of aluminum composites using design of experiments", *Journal of Scientific & Industrial Research*, Vol. 73, No. 4, Pp: 251-257, 2014. **(Scopus Indexed)**
6. A Giribabu, **S. Rama Rao** and G. Padmanabhan "Optimization of machining parameters in ECM of Al/B₄C composites using genetic algorithms" *International Journal of Mechanical Engineering & Robotics Research*, Vol. 3, No. 3, Pp: 32-38, 2014.
7. **S. Rama Rao** and G. Padmanabhan, "Optimization of Machining Parameters in ECM of Al/B₄C Composites Using Taguchi Method", *International Journal of Applied Science and Engineering*. Vol. 12, No. 2, Pp: 87-97, 2014.
8. P. Kumar, B. J. Naik, Ch.V. Rao and **S. Rama Rao**, "Optimization of casting parameters for casting of Al/RHA/RM hybrid composites using Taguchi method" *International Journal of Engineering Trends and Technology*, Vol. 4, No. 8, Pp: 3284-3288, 2014.
9. Konanki M. Naidu and **S. Rama Rao**, "ANN Based Surface Roughness Prediction in Turning of AA6351", *International Journal of Engineering Research and Applications*, Vol. 3, No. 4, Pp: 1455-1459, 2013.
10. **S. Rama Rao** and G. Padmanabhan, "Multi-Response Optimization of Electrochemical Machining of Al-Si/B₄C Composites Using RSM", *International Journal of Manufacturing, Materials, and Mechanical Engineering*, Vol. 3, No. 3, Pp: 42-56, 2013. **(Scopus Indexed)**
11. **S. Rama Rao** and G. Padmanabhan, "Optimization of Machining Parameters in ECM of Al/B₄C Composites", *Journal of Manufacturing science and Production*, Vol. 13 No. 3, Pp: 145-153, 2013.
12. **S. Rama Rao** and G. Padmanabhan, "Linear Modeling of the Electrochemical Machining Process Using Full Factorial Design of Experiments", *Journal of Advanced Mechanical Engineering*, Vol. 1, Pp: 13-23, 2013.

13. **S. Rama Rao** and G. Padmanabhan, "Modeling of radial over cut in electrochemical machining of Al/B₄C MMC using response surface methodology", *Journal of Manufacturing science and Production*, Vol. 13, No. 1-2, Pp: 31-38, 2013.
14. **S. Rama Rao**, G. Padmanabhan and K. Charan Kumar, "Multi Response Optimization of Electrochemical Machining of Al-B₄C Composites Using Grey Relational Analysis" *The IUP Journal of Mechanical Engineering*, Vol. 5, No. 2, Pp: 58-67, 2012.
15. **S. Rama Rao** and G. Padmanabhan, "Application of Taguchi methods and ANOVA in optimization of process parameters for metal removal rate in electrochemical machining of Al/5%SiC composites" *International Journal of Engineering Research and Applications* Vol. 2, No. 3, Pp: 192-197, 2012.
16. **S. Rama Rao** and G. Padmanabhan, "Effect of process variables on metal removal rate in electrochemical machining of Al-B₄C composites" *Archives of Applied Science Research*, Vol. 4, No. 4, Pp: 1844-1849, 2012.
17. **S. Rama Rao** and G. Padmanabhan, "Fabrication and mechanical properties of aluminium-boron carbide composites", *International Journal of Materials and Biomaterials Applications*, Vol. 2, No.3, Pp: 15-18, 2012.
18. **S. Rama Rao**, G. Padmanabhan, B. Surekha and Pandu R. Vundavilli, "Optimization of Electrochemical Machining Process Using Evolutionary Algorithms" *Journal of Machining and Forming Technologies*, Vol. 1, No. ¾, Pp: 265-278, 2009.

Conferences - 4

- 1) Raja Vamsi and **S. Rama Rao**, "Additive manufacturing systems", International Conference on Recent Trends in Mechanical Engineering (NECICRTME-2k15), November 20-21, 2015, at Narasaraopeta Engineering College, Narasaraopet, Guntur, India.
- 2) **S. Rama Rao**, G. Padmanabhan and K. Charan Kumar, "Effect of percentage of reinforcement on MRR and ROC for Al/B₄C composites in Electrochemical Machining: A Practical Approach" *Proceedings of NCRTIME'12*, Volume 11 March'22, 2012, Chennai, India.
- 3) **S. Rama Rao**, C.R.M Sravan, G. Padmanabhan and Pandu R. V "Fuzzy logic based forward modeling of electrochemical machining process" *Proc. of 2009 World Congress on Nature & Biologically Inspired Computing (NaBIC 2009)*, Coimbatore, India, 2009, Pp:1431-1435. **(IEEE conference)**

- 4) **S. Rama Rao**, G. Padmanabhan and C.S.P. Rao, “Optimal selection of process plans and scheduling using Genetic Algorithms and simulated Annealing approach” *All India seminar on Emerging Trends in Mechatronics& Instrumentation*, June 29 – 30, 2007, at S.V.U. College of Engineering, Tirupati.

Workshops/Seminars/ conferences Attended:

- Three day international conference on “**Mathematical Science and Engineering Applications**” organized by Baba Institute of Technology and Sciences, Visakhapatnam during 23rd -25th, December 2016.
- One day workshop on “**Entrepreneurship Development**” organized by AP Government at Startup Village, Maddurawada IT Lay Out, Visakhapatnam, on 29th January 2015.
- One day workshop on “**Startup Bootcamp Inauguration at Sunrise Startups Incubation Center**” organized by JNTUA, Ananthapuramu, 23rd January 2015.
- Three day conference on “**12th Global Congress on Manufacturing and Management**” organized by VIT University, Vellore, during 8th-10th December 2014.
- Two day workshop on “**Initiatives for Quality Improvement in Engineering Education**” organized by SVU college of Engineering, SV University, Tirupthi, during 15th-16th November 2014.
- Two day faculty development program on “**Being an Effective Team Player and Effective Presentation Skills Required by Teachers**” organized by SVCET, Chittoor, during 2nd-3rd August 2014.
- One day national workshop on “**Engineering Graphics (Perspective Projections)**” organized by SVCET, Chittoor, on 14th March 2014.
- One day faculty development program on “**Leadership and Team Building**” organized by SVCET, Chittoor, on 1st August 2014.
- Short term training programme on “**Digital Factory**” organized by NITW, Warangal, during 25th August – 6th September, 2008.
- One day workshop on “**Applications of Mathematics in Engineering and Science**” organized by Narasaraopeta Institute of Technology, Narasaraopet, on 21st February, 2009.

- One day workshop on “**Role of Mechatronics & Robotics in Industrial Sector**” organized by QIS College of Engineering & Technology, Ongole, on 14th July, 2008.
- Two day National Seminar on “**Application of Soft Computing Tools in Mechanical Engineering**” organized by Siddhartha Engineering College, Vijayawada, during 28th & 29th January, 2008.
- One day workshop on “**Mechatronics**” organized by Godavari Institute of Engineering & Technology, Rajahmundry, on 15th December 2007.
- All India seminar on “**Emerging Trends in Mechatronics & Instrumentation**”, organized by S.V.U. College of Engineering, SV University, Tirupathi, during 29th & 30th June 2007.
- Two day National Workshop on “**Computer Applications in Solids, Fluids and Thermal Sciences**” organized by Maharaj Vijayram Gajapathi Raj College of Engineering, Vizianagaram, during 23rd & 24th March, 2007.
- Three day workshop on “**Genetic Algorithms for Mechanical Engineering**” organized by NITW, Warangal, during 3rd- 5th March, 2006.

Conferences/Seminars/workshops Conducted:

- International Conference on Recent Trends in Mechanical Engineering (NECICRTME-2k15), November 20-21, 2015, at Narasaraopeta Engineering College, Narasaraopet, Guntur (Co-convener)
- National level conference on “Recent Advances in Mechanical Engineering” 8th August, 2014, SVCET, Chittor (Coordinator).
- One day national level work shop on Assembly of Machine Components Using Solid Works (MACHINE DRAWING), 26th March, 2014, SVCET, Chittor (Coordinator).
- National level workshop on “Soft Computing Techniques” on 3rd March, 2012 in the Department of Mechanical Engineering, Narasaraopeta Engineering College, Narasaraopet (Coordinator).
- National level workshop on “Synthesis and Analysis of Nano-materials” during 3rd & 4th January, 2011 in the Department of Mechanical Engineering, Narasaraopeta Engineering College, Narasaraopet (Coordinator).
- National workshop on “Modern Trends in Manufacturing” during 17th & 18th October, 2008 in the Department of Mechanical Engineering, Narasaraopeta Engineering College, Narasaraopet (Coordinator).

Co-Curricular and Extra-Curricular Activities:

- Reviewer for International Journal of Production Research, Journal of Materials Research and Technology, International Journal of Surface Science and Engineering, International Journal of Applied Science and Engineering, Jordon Journal of Mechanical and Industrial Engineering, etc.
- Coordinator for NBA work in Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology (A), Chittoor.
- Coordinator for NBA work in Department of Mechanical Engineering, Narasaropeta Engineering College, Narasaropet.
- Member in the sports committee for annual day celebrations in Narasaraopeta Engineering College, Narasaraopet, in 2010.
- Coordinator for the annual sports celebrations in 2006 in S.V.V.S.N Engineering College, Ongole.
- Won prizes in annual day sports celebrations in Narasaropeta Engineering College, Narsaraopet and S.V.V.S.N Engineering College, Ongole.

Subjects taught:

Engineering Drawing, Engineering Mechanics, Fluid Mechanics & Hydraulic Machines, Strength of Material, Production Technology, Kinematics of machinery, Dynamics of Machinery, Metal Cutting & Machine Tools, Design of Machine Members-I, Design of Machine Members-II, Metrology, Instrumentation and Control System, Mechatronics, Refrigeration & Air-Conditioning, Unconventional Machining methods, etc.