

Name: Dr. M. S. SREENIVASA RAO  
Designation: Assistant Professor  
Department: Mechanical Engineering  
Mail I'd: [subbusoft2004@gmail.com](mailto:subbusoft2004@gmail.com)



Experience (in years): 20      Teaching: 13      Research: 7  
Others(if any, specify): Nil

### 1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	UG: B.Tech	1999	Mechanical Engineering
2	PG: M.Tech	2009	Advanced Manufacturing systems
3	Ph. D	2019	Welding

### 2. Teaching and Learning:

- 2.1. Teaching Interests: Production Technology, Engineering Drawing/Graphics, Machine Tools, Special Manufacturing Systems, Design for Manufacturing, Engineering Metallurgy, Production Technology Lab, Machine Tools lab, Material Science and Metallurgy Lab.
- 2.2. Novel Teaching & Learning Techniques adopted: VNR Lab Protocol, POGIL, WIT & WIL.
- 2.3. Involvement in curriculum updating / Design: Modified the curriculum of Production Technology theory and Production Technology Lab for UG course.

### 3. Co-curricular and Extra-Curricular Activities

#### 3.1. Interests and Hobbies:

- Exploring new technologies.
- Gardening
- To promote work efficiency and good attitude towards work, in organizations.

3.2. CCA/ECA Organized: Nil

3.3. CCA/ECA participated: Nil

3.4. Counseling and Mentoring Activity: Mentor for IV B.Tech Mechanical Engineering students.

3.5. Committees involved in:

Department level:

Department Comprehensive viva Committee,

Department syllabus review committee.

Mentor for I B.Tech Mechanical Engineering students.

Institute Level: Discipline Committee.

### 4. Conference / Workshop / Seminar / Guest Lectures :

4.1 Conducted:

- Organized a two day workshop on “ADDITIVE MANUFACTURING” conducted by Department of Mechanical Engineering during 16<sup>th</sup>-17<sup>th</sup> December-2013 under TEQIP-II.

#### 4.2 Attended:

##### **International Journals: 10**

1. M.S. Srinivasa Rao , Dr. B.V.R. Ravi Kumar, Dr.M.Manzoor Hussain” Experimental study of weld characteristics during friction stir welding (FSW) of Aluminum Alloy (AA6061-T6)” International Journal of Research in Engineering and Technology (IJRET), Volume 1, Issue3, Nov 2012, ISSN: 2319-1163
2. B.L.N.Krishna Sai, M.S.Srinivasa Rao, "Experimental study on the Effect of tool pin profiles on Dissimilar alloys Friction Stir Welding, "International Journal of Engineering and Technical Research (IJETR), ISSN:2321-0869(O) 2454-4698(P), Vol-3, Issue-8, (PAPERID:IJETR032879) AUG-2015, pp. 136-141.
3. N.Sasi Kartik Sai, M.S.Srinivasa Rao," Experimental Analysis to Optimize Parameters of Friction Stir Welding of Aluminium Alloy and Stainless Steel, "International Journal of Innovative Research in Science, Engineering and Technology (IRJET), ISSN:2319-8753(O) 2347-46710(P), Vol-4, Issue-7, Jul-2015, pp. 5340-5344.
4. M.S.Srinivasa Rao, Dr.B.V.R.R.Ravi Kumar, Dr.M.Manzoor Hussain, “Optimization of the process parameters of friction stir welded aluminum alloys for maximum tensile strength, “IOSR-Journal of Mechanical and Civil Engineering (IOSR-JMCE), ISSN:2278-1684 Vol-13, Issue-3, Jun-2016, pp. 01-06.
5. M.S.Srinivasa Rao, Dr.B.V.R.R.Ravi Kumar,Dr.M.Manzoor Hussain, “Effect of process parameters on metallurgical and mechanical properties of Friction Stir Welded aluminum alloys, “International Journal of Theoretical and Applied Mechanics (IJTAM), Research India Publications,ISSN:0973-6085 Vol-12, Issue-3, 2017, pp. 473-484.
6. Srirangam Adithya Vamshi, M. S. Srinivasa Rao, Dr.B.V.R.R.Ravi Kumar,Dr.M.Manzoor Hussain, “Experimental Investigation on Influences of Tool Rotational speed and pin profile on Friction Stir Welding of AA 7075 Aluminium Alloys, “International Journal of creative Research Thoughts (IJCRT),ISSN:2320-2882, (PAPER ID:IJCRT1872205); Vol-6, Issue-1, Mar-2018, pp. 272-277.
7. Srirangam Adithya Vamshi, M. S. Srinivasa Rao, S.N. S. Sai Hari, “Experimental Investigation on Influences of Tool Shoulder Diameter(D) to Plate Thickness (T) ratio on Friction Stir Welding of Dissimilar Aluminium Alloys, “International Research Journal of Engineering and Technology (IRJET), ISSN(e):2395-0056, ISSN(p):2395-0072 , (PAPER ID:677); Vol-5, Issue-4, Apr-2018, pp. 3062-3068.
8. Soppari Bhanu Murthy, Dr.M.S.Sreenivasa Rao, Narendra Pothula, “Evaluation of Mechanical Properties of Hybrid Composite, “International Journal of New Innovations in Engineering and Technology(IJNIET),ISSN:2319-6319, Vol-14, Issue-1, Jun-2020, pp. 08-13.

9. P. Naga Lakshmi Devi, S. Saroja, Dr.M.SubrahmanyaSreenivasaRao, Dr. P. J. Ravindranath, "Finite Element Analysis of Free Convection In A Square Cavity With Magnetic Field and Semi Circular Heat Source of Different Orientations," Journal of Xi'an University of Architecture & Technology, ISSN: 1006-7930, Vol-12, Iss-10, Jun-2020, pp-340-358.
10. P.Naga Lakshmi Devi, M.Subrahmanya Sreenivasa Rao, S.Udaya Bhaskar, Dr. P.J. Ravindranath, "MHD Radiative Heat Source/Sink Fluid Past A Vertical Porous Plate With Effect On Radiation Absorption," GIS Science Journal, ISSN: 1869-9391, Vol-7,Iss-10, 2020, pp-738-750.

### **International conferences: 13**

1. M.S.Srinivasa Rao, Dr.B.V.R.R.Ravi Kumar,Dr.M.Manzoor Hussain, "Experimental study on the effect of welding parameters and tool pin profiles on the IS-65032 aluminum alloy FSW joints", 5th International conference on Materials Processing and Characterization (ICMPC-2016), Hyderabad, 12th-13th March-2016, Vol : 4; Pg: 1394-1404.
2. M.S. Srinivasa Rao, A.Venkata Narayana, "Effect of process parameters during friction stir welding of AA7075-76 on CNC vertical milling machine", IEEE Sponsred International Conference on Engineering and Technology (ICET) (Coimbatore)- 16th - 17th December 2016, Vol : 4; Pg: 301-306.
3. Md Mastan Ali, M.S. Srinivasa Rao, "Analysis of Variances used to analyze the process parameters during Friction Stir Welding on AA2024 Welded Joints", IEEE Sponsred International Conference on Engineering and Technology (ICET) (Coimbatore)- 16th-17th December 2016, 978-1-5090-3212-9; Vol:3; Pg:227-232; Paper ID: 347.
4. Md Mastan Ali, M.S. Srinivasa Rao, "Taguchi technique to optimize process parameters during FSW on AA2024 weld joints", International conference (i-CAM2K16) on Recent Innovations in Civil and Mechanical Engineering- 10th - 11th December 2016, e-ISSN: 2278-1684 P-ISSN: 2320-334X; Pg: 6-10 (IOSR-JMCE).
5. M.S.Srinivasa Rao, Dr.B.V.R.R.Ravi Kumar,Dr.M.Manzoor Hussain, "Friction stir welding: Process and its Variables- A Review", 9th International Conference on Recent Innovations in Science, Engineering and Management (ICRISEM-2017)- 28th - 29th, January 2017.
6. Srirangam Adithya Vamshi, M.S. Srinivasa Rao, T Malyadri, "Effect of tool shoulder diameter (D) to Plate Thickness (T) Ratio (D/T) on quality of friction stir welding of dissimilar aluminium

alloys”, International conference on Advanced Scientific Innovation in Science and Technology (ICASISSET-2018) Chennai, Bharath Institute of Higher Education and Technology- 11-13th April-2018, ISSN:2250-2459; ISO-9001-2008, VOL:8, SPECIAL ISSUE:1,JUNE 2008.

7. R. Saravanan, T Malyadri, Nagasrisaihari Sunkara, M.S. Srinivasa Rao, “Cost and time effectiveness through six sigma’s ECRS technique, experimental study at an automobile assembly plant”, 4th International conference on Future Technologies in Mechanical Engineering (ICFTME-2018) MRCE- 28th - 29th Dec-2018, ISBN: 978-81-939386-0-7.
8. R. Saravanan, M.S. Srinivasa Rao, T Malyadri, Nagasrisaihari Sunkara, “Profile optimization in tool tip for FSW process – A numerical investigation”, 2nd International Conference on Innovations in Mechanical Engineering (ICIME-2019) Gurunanak-4th - 5th Jan-2019, ISBN: 978-81-939248-8-4.
9. R. Saravanan, T Malyadri, M.S. Srinivasa Rao, Nagasrisaihari Sunkara, “Synthesize and Characterization of Maleic acid treated Banana Fiber Composites”, 9th International Conference on Materials Processing and Characterization (ICMPC-2019) GRIET-8th, 9th and 10th Mar-2019, Pg: 5382-5387.
10. T Malyadri, M.S. Srinivasa Rao, Nagasrisaihari Sunkara, Narendra Pothula, “ An IoT Based Bomb Diffusing Rover,”5th International Conference on Big data and IOT organized by St. Joseph's Institute of Technology, held at Chennai.
11. R. Saravanan, Nagasrisaihari Sunkara, M.S. Srinivasa Rao, T Malyadri, “ Experimental exploration on influence of gas nitriding and chromium coated piston rings in reduction of wear and lubricant consumption in petrol engines,” AIP conference proceedings-Proceedings of International conference on Recent trends in Mechanical and Materials Engineering. 2283,020071 (2020)
12. R. Saravanan, M.S. Srinivasa Rao, Nagasrisaihari Sunkara, T Malyadri, “ Six sigma’s ECRS technique to down cost and time of manufacturing –An Experimental investigation,” AIP conference proceedings-Proceedings of International conference on Recent trends in Mechanical and Materials Engineering. 2283,020070 (2020)
13. Soppari Bhanu Murthy, Narendra Pothula, Dr.M.S.Sreenivasa Rao, Naresh Kumar Goud Ranga, “ Development of PLC based Sequential Pneumatic Punching System,” Materials Science and Engineering. 012079 (2021)

**National conferences:**

1. T.Prasad, M.S.Srinivasa Rao, "Computational Study on the stress Analysis of Glass Epoxy Composites [Conducted by JNTUH, Hyd]", National Conference on State of the Art of Technologies in Mechanical Engineering (NCSAME-2009)-Hyderabad, 20th - 21st August 2009, Pg:45.
2. T.Prasad, M.S.Srinivasa Rao, "Tensile and fracture behaviour of 6061 Al-Si Cp Metal Matrix Composites", National conference on Mechanical Engineering Emerging Trends, MEET-2010- (Conducted by Vardhaman College of Engineering)-6th -7th August 2010, Pg:24.
3. M.S.Srinivasa Rao ,Dr. Ravi Kumar B.V.R, Dr.Manzoor Hussain M, "Experimental study of weld characteristics during Friction Stir welding (FSW) of Aluminum Alloy (AA6061-T6)", Advances in Manufacturing Technology & Management AMTM 2010 (Conducted by JNTUH and PRRM)-30th - 31st August 2010.

**Workshops /FDP/Guest lectures:**

- One day workshop on "Finite Element Techniques for Aerospace Applications" Sponsored by IARA, Conducted by Department of Aeronautical Engineering on 29<sup>th</sup> December 2007.
- "Advances in CFD" sponsored by CMR Educational Society, organized by the Department of Aeronautical Engg. on 28<sup>th</sup>, 29<sup>th</sup> & 30<sup>th</sup> August, 2008.
- Participated in Faculty development programme on "Design Aspects of Mechanical & Aerospace Engineering" sponsored by CMR Educational Society, jointly organized by Departments of Mechanical & Aeronautical Engineering, MRCET & CMEC from 2<sup>nd</sup> July to 10<sup>th</sup> July 2009.
- One day workshop on "Active Research (WAR-2010) sponsored by Vardhaman College of Engineering, organized by Departments of Mechanical Engineering, on 15<sup>th</sup> September 2010.
- One day workshop on "eTeaching for Engineering Faculty" organized by Cognifront at JNTU, Hyderabad on 2<sup>nd</sup> July 2011.
- Two day National level work shop under TEQIP-II on "Recent Advances in CFD for Industrial Applications" conducted by Malla Reddy Engineering College, organized by the Department of Mechanical engineering on 24<sup>th</sup> & 25<sup>th</sup> of March 2012.
- Two day work shop on "Applications of FEM" held during the period from 31-08-2012 to 01-09-2012, at CMRIT, Kandlakoya(V), Medchal Road, Hyderabad, A.P., under Outreach programmes of JNTUH conducted by MLR Institute of Technology.
- Three day workshop on "NON DESTRUCTIVE TESTING" conducted by the VNRVJIET, Department of Mechanical engineering during 19<sup>th</sup> – 21<sup>th</sup> of December 2013.
- Two day National Workshop on "Additive Manufacturing" conducted by the VNRVJIET, Department of Mechanical engineering during 16<sup>th</sup> – 17<sup>th</sup> of December 2013 under TEQIP-II.
- Two day workshop on "Advanced Materials & Their applications" organized by Department of H&S, VNRVJIET, Hyderabad, Under TEQIP-II on 2<sup>nd</sup> & 3<sup>rd</sup> September 2013.
- One day workshop on "Orientation Program Engaging Newcomers (Faculty)" –Open(F) organized by Department of H&S, VNRVJIET, Hyderabad, Under TEQIP-II on 6<sup>th</sup> July, 2013.
- Faculty Development Programme on "Finite Element Applications in Civil Engineering", Sponsored by AICTE, Organized by the Department of Civil Engineering, VNRVJIET from 3<sup>rd</sup> - 15<sup>th</sup> June 2013.
- One day workshop on "Advanced trends in IC engines and combustion" on 28<sup>th</sup> February 2013 organized by the Department of Mechanical engineering, JNTUH college of Engineering.

- Faculty Development Programme entitled “Engineering Mechanics: Statics & Dynamics” organized during 29<sup>th</sup> June 2013 at MLR Institute of Technology.
- Three day National workshop on “Alternative Fuels and Powertrain Systems” Sponsored by TEQIP, organized by the Department of Automobile Engineering held during 4<sup>th</sup> to 6<sup>th</sup> December 2014 at VNRVJIET, Hyderabad.
- Two day workshop on “Engineering Drawing” Under TEQIP-II S.C.-1.1 on 12<sup>th</sup> & 13<sup>th</sup> September 2014, organized by the Department of Mechanical engineering, Malla Reddy Engineering College, Secunderabad.
- Three day National workshop on “Friction Stir Welding, NDT and Optimization” organized by the Mechanical Engineering Department, NIT - Warangal under TEQIP-II during 9<sup>th</sup> -11<sup>th</sup> January 2014.
- Three day National workshop on “Additive Manufacturing” Held at Gokaraju Rangaraju Institute of Engineering & Technology, Hyderabad, under TEQIP-II 25<sup>th</sup> to 27<sup>th</sup> March 2015.
- Two day Workshop on “3D PRINTING” conducted by the VNRVJIET Mechanical Engineering during 19<sup>th</sup> -20<sup>th</sup> March, 2015.
- Two day Faculty Development Programme on “Finite Element Analysis” on 20<sup>th</sup> & 21<sup>th</sup> February, 2015, organized by Department of Mechanical Engineering, Malla Reddy Engineering College, Hyderabad .
- Three day premier National level faculty Development Programme on “Research Trends and Issues in Mechanical Engineering” on 25<sup>th</sup>, 26<sup>th</sup> & 27<sup>th</sup> February, 2016, organized by Department of Mechanical Engineering, Malla Reddy Engineering College, Hyderabad
- One week National level workshop on “Composite Materials & its Applications” from 29<sup>th</sup> February to March, 2016 held at Anurag Group of Institutions, Ghatkesar, Hyderabad.
- Three day National workshop on “Recent Trends and Research Opportunities in Manufacturing Processes(RTROMP-2016)” organized by the Department of Automobile Engineering during 9-11 March at VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad.
- Three day workshop on “Advances in Research and innovations in Mechanical Engineering” “ARIME 2017” organized by the Department of Mechanical Engineering From 30<sup>th</sup> January to 1<sup>st</sup> February 2017 at Muffakham Jah College of Engineering & Technology, Hyderabad.
- One week workshop on “Advanced Numerical Modeling Techniques for Mechanical Engineering” organized by Department of Mechanical Engineering, held during 27<sup>th</sup> to 31<sup>st</sup> March 2017 at VNRVJIET, Hyderabad.
- Five day training programme on “Adams Software” organized by Department of Mechanical Engineering, during November 21-25, 2017 at VNRVJIET, Hyderabad.
- Five day training programme on “Engineering Drawing Through AUTOCAD” conducted by the Department of Mechanical and Automobile Engineering, during 11<sup>th</sup> -25<sup>th</sup>, December 2017 at VNRVJIET, Hyderabad.
- One week faculty Development program on “Design of Machine Elements” held at CMR Institute of Technology, Hyderabad on 7<sup>th</sup> to 14<sup>th</sup> of February, 2018 organized by Department of Mechanical Engineering.

## **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: 12 batches                      b) PG: 6

5.5. Research Interests: Manufacturing, welding

5.6. Ph.D students: N.A.

a) Enrolled: N.A.                      b) Submitted: N.A.                      c) Awarded: N.A.

5.7. Papers published in reviewed Journals:

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Experimental study of weld characteristics during friction stir welding (FSW) of Aluminum Alloy (AA6061-T6)	Journal of Research in Engineering and Technology (IJRET), Vol-1, Issue-3	ISSN - 2319-1163	0.6	International
2	A Review of friction stir welding process and its variables	Journal of Science and Research (IJSR), Vol-2, Issue-3	ISSN: 2319-7064.	0.8	International
3	A Review on Recent Developments in Wire EDM	International Journal of Science and Research (IJSR), Volume - 3 Issue-8	ISSN: 2319-7064.	0.8	International
4	Optimization of the process parameters of friction stir welded aluminum alloys for maximum tensile strength	Journal of Mechanical and Civil Engineering, (IOSR-JMCE), Volume.13, Issue.3, 2016,	ISSN:2278-1684	2.5	International
5	Effect of process parameters on metallurgical and mechanical properties of Friction Stir Welded aluminum alloys, International Journal of Theoretical and Applied Mechanics (IJTAM), Research India Publications.	Volume.12, Issue.3, 2017, pp. 473-484.	ISSN:0973-6085	3.0	International

5.8. Papers presented at National / International conferences:

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Computational Study on the Stress Analysis of Glass Epoxy Composites	State of the Art of Technologies in Mechanical Engineering (NCSAME-2009),JNTUH.	National	August 20 <sup>th</sup> -21 <sup>st</sup> ,2009.
2	Experimental study of weld characteristics during Friction Stir Welding of Aluminum Alloy & Alloy Steel.	Advances in Manufacturing Technology & Management (AMTM)-2010, (Conducted by JNTUH	National	August 30 <sup>th</sup> -31 <sup>st</sup> , 2010
3	Tensile and fracture behaviour of 6061 Al-Si Cp Metal Matrix Composites.	National conference on Mechanical Engineering EmergingTrends,MEET-2010-(Conducted by Vardhaman College of Engineering)	National	6th -7th August 2010, Pg:24.

#### 5.9. Sponsored research Projects: N.A.

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed

#### 5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
1	Comparative study of weld characteristics of IS:65032 aluminum alloy by two processes – Friction Stir Welding (FSW) and Gas Tungsten Arc Welding (GTAW)	DRDO, ASL-CARS Hyderabad.	2 Years (JUNE 2013 to MARCH 2017)	9,91,100/-	Completed
2	EXPERIMENTAL INVESTIGATION ON ROLE OF HYBRID TOOL PIN PROFILE ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF FRICTION STIR	AICTE RPS	3 Years	7,84,314/-	Ongoing

	WELDED DISSIMILAR AA6082-AA5083 ALUMINUM ALLOY				
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**6. Awards / Honors received:** NIL

**7. Motto:**

- Work smarter, not harder
- Always strive to be happy