BRIEF RESUME

1. Name : Dr. Vaddi Seshagiri Rao,

PROFESSOR and PRINCIPAL,
St. Joseph's College of Engineering,
Old Mahabalupuram Road,
Sholinganallur, Chennai 600119

2. Email(s) and contact number(s) : principal@stjosephs.ac.in, raosvaddi@gmail.com
9444069916, 044 24503237, 044 22600609

3. Date of Birth : 16-07-1967

4. Academic Qualification :

- **Ph.D**, in Mechanical Engineering, 2005, Jawaharlal Nehru Technical University, Hyderabad (Thesis: Design and Analysis of Multi-Function Control Robotic System).
- **M.E.** in Mechanical Handling, 1994, Andhra University, Visakhapatnam, AP.
- **B. Tech.** in Mech. Engineering, 1989, Acharya Nagarjuna University, AP.
- **MBA (**Operations Management), 2009, IGNOU, New Delhi

5. Work experience:

S.No.	Positions held	Name of the Institute	From	To
1.	Principal	St. Joseph's College of Engineering	01-04-2014	Till date
2.	Professor & Head	St. Joseph's College of Engineering	01-06-2008	31-04-2014
3.	Professor	St. Joseph's College of Engineering	01-06-2005	31-05-2008
4.	Assistant Professor	St. Joseph's College of Engineering	01-06-1997	31-05-2005
5.	Lecturer	St. Joseph's College of Engineering	08-06-1995	31-05-1997
6.	Lecturer	Bharath Engineering College, Chennai	08-12-1994	07-06-1995

6. Industrial Experience:

Sl.No.	Name of the organization	Designation	Nature of work	No. of years
1	PRAGA Tools – Hyderabad	Trainee	Sub – Assembly of Surface Grinding Machine and Milling Machine	Six months
2	B.H.E.L - Hyderabad	Project Asst	Indigenization of Gas turbine frame -6 type	1
			Total no. of years	1.5 years

7. Research Information

Papers in Journals	:	34 (International: 30 and National: 04)
Papers in Conferences	:	18 (International: 06 and National: 12)
No. of Ph.D's guided	:	03 (04 in Progress)
M.E/M.Tech Projects Guided	:	04

International Journals:

1. Seshagiri Rao . V & D. Vijayan (2016), "'**Tensile Properties Improvement on Friction Stir Welded Age-Hardenable Aluminum Alloys: An Evolutionary Approach using RSM based GA and SA**", Revista Tecnica De La Facultad De Ingenieria Universidad Del Zulia, Pages 55-70.
2. Seshagiri Rao. V & R.Satish. (2016), "**Mechanical and Metallurgical Characterization of Dissimilar weld Joints Using Continuous Direct Drive Friction Welding**", Engineering Transactions, Vol. 64, pages 241-252.
3. Seshagiri Rao . V & D. Vijayan (2015), "**Parametric optimization of age hardenable aluminum alloys using TGRA coupled with PCA**", Applied Mechanics & Materials, Vol. 813-814, Pages 613-619.
4. Seshagiri Rao. V and Venkatesh. R (2015), **Wear Ananlysis on Silicon Carbide Coated HSS Pin on SS Disc Substrate",** Procedia Materials Science (10), Pages 644-650.
5. Seshagiri Rao .V and Aldrin Sugin (2015), "**Fabrication of Aluminium Fly ash metal Matrix Composites with Activated carbon and Characterization of mechanical properties",** International Journal of Applied Engineering Research ISSN0973-4562 Vol. 10 No. 11, Pages 10440 -10444.
6. Seshagiri Rao. V & R.Sathis. (2014), "**Corrosion Studies on Friction Welded Dissimilar Aluminum Alloys of AA7075-T6 and AA6061-T6"** International Electrochemical Science, Vol-9, Pages -4104-4113.
7. Seshagiri Rao. V & D.Vijayan. (2014), "**Friction Stir Welding of Age-Hardenable Aluminum Alloys: A parametric Approaches using RSM Based GRA coupled with PCA"** Journal of institute of Engineering India, Vol-95, Pages-127-141.
8. Seshagiri Rao. V & D.Vijayan. (2014), "**A Parametric Optimization of FSW Process using RSM Based GRA Approach",** International Review of Mechanical Engineering, Vol-8, No.2.
9. Seshagiri Rao. V & D.Vijayan. (2014), " **A Multi Response Optimization of tool pin Profile on the Tensile Behavior of Age-hardenable Aluminum Alloy during Friction Stir Welding"** Research Journal of Applied Sciences, Engineering and Technology, Vol-7, Pages- 4503-4518.
10. Seshagiri Rao. V, & Jessy K, Sathis Kumar. (2014), "**Influence of Different Cooling Methods on Drill Temperature in Drilling GFRP"** International Journals of Advanced Manufacturing Technology, Vol- 74,
11. Seshagiri Rao. V and K.V. Krishna Sastry. (2014), **"Experimental Analysis of Hole Ovality in Drilling of Carbon-Carbon Composites"** International Journal of Applied Mechanics and Materials, Vol-592-594, Pages-294-301.
12. Seshagiri Rao. V and K.V. Krishna Sastry. (2014), **" Multi Response Optimization of Carbon – Carbon (c/c) Drilling Parameters by using Grey Theory Technique"** International Journal of materials research, Vol-936,Pages-1801-1808.
13. Seshagiri Rao. V and K.V. Krishna Sastry. (2014), **" Determination and Analysis of Optimal Drilling Conditions of Carbon-Carbon Composite using Deng's Grey Theory"** Indian Journal of Engineering, Vol-10, Pages-92-100
14. Ravikumar. S, SeshagiriRao. V and Pranesh. R.V. (2014), **"Effect of process parameters on mechanical properties of friction stir welded dissimilar materials between AA6061-T651 and**

AA7075T651 alloys" International Journal of Advanced Mechanical Engineering, Vol -4,No -1, pages-101-114, ISSN 2250-3234, Research India Publications.

15. Ravikumar. S, SeshagiriRao. V and Pranesh. R.V.(2014), **"Multiple Response Optimization with Grey Relational Analysis of Friction Stir Welding Parameters in Joining Dissimilar Aluminium Alloys by Taguchi Method"** in International Journal "Applied Mechanics of Materials" Applied Mechanics and Materials Vols. 592-594 (2014) pp 555-559 © (2014) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.592-594.555,Serial No-1434, ISSN 1660-9336. (Annexure –II - SCOPUS (SJR 0.125, SNIP 0.239 - as on 2012).
16. Ravikumar. S, Seshagiri Rao.V, Prakash.S and Vishnu.R.C. (2014), **"Mathematical Modeling and Analysis of Tensile strength and Hardness for Dissimilar Friction Stir Welded aluminium alloys through Response Surface Methodology"**, International Journal of Manufacturing Technology and Research, Research Promotion Cell, University Polytechnic, GLA University, Mathura, Vol.10 ,No.1 Jan-June 2014/ pp. 59-67, ISSN- 0973-0281.
17. Seshagiri Rao. V and K.V. Krishna Sastry, **"Parametric Optimization of CFRC Composite Drilling HSS Drill using Grey Relational Analysis"**, Int. J. of Innovative research in Science, Engineering and Technology, Vol.2, Issue 9, pp. 4368 to 4378, September 2013.
18. Seshagiri Rao. V and K.V. Krishna Sastry, **"Minimization of Delamination Factor in Drilling Of Reinforced Carbon-Carbon (RCC) Composite Material by Applying Taguchi Method",** International Journal of Engineering and Advanced Technology, pp. 391-395, September 2013.
19. Seshagiri Rao. V and K.V. Krishna Sastry, **"Application of Grey Relational Analysis to Determine the Optimum Drilling Parameters of Rcc**", in IJREAT International Journal of Research in Engineering and Advanced Technology, Volume 1, Issue 4, Aug-Sep 2013.
20. Seshagiri Rao. V Jessy K & Sathis Kumar. (2103) **"Investigation on the influence of fluctuation in thrust force during Drilling GFRP Composite by Recurrence Quantification Analysis"** European Journal of Scientific Research, Vol-10,Pages-340-351.
21. Seshagiri Rao. V, Aldrin Sugan M.S and Purushothaman S., **"Characterization of Aluminum Flyash Particles Metal Matrix Composites for Application to Wings of Plane"**, European Journal of Scientific Research, Vol. 96 No.1, February 2013.
22. Seshagiri Rao. V, et. al., **"Weldability and Process parameter optimization Dissimilar pipe joints using GTAW"**, International Journal of Engineering Research and Application, Vol. 2, Issue 3, pp. 2525-2530, May-June 2012.
23. **Ravikumar. S**, Seshagiri Rao.V, Ramachandran.S and Nagalingeswara Rao.B.(2012), **"Experimental investigation in predicting friction stir weld process parameters for dissimilar AA7075T651-AA6061T651 butt joints"**, International Journal on Design and Manufacturing Technologies, Sathyabama University, Vol -6,No -2, pages-46-54, ISSN 0973-9106.
24. Seshagiri Rao. V, Ananthapadmanaban. D and Prasad Rao. K, **"Some Observations on friction welding of Aluminum to Copper"**, International Journal of Contemporary Science, Engineering and Technology, Vol. 1, No. 1-2, pp. 5-8, Jan-December 2010.
25. Seshagiri Rao. V, Ananthapadmanaban. D, Vijayan. V and MuthuvaidyaNathan. R, **"A Review of Friction Welding Processes in Similar and Dissimilar Materials"**, International Journal of Design and Manufacturing, Vol. 3, No.2, pp. 68-72, July 2009.
26. Seshagiri Rao. V, Abraham. N and Prasad Rao. K, **"A study of Mechanical Properties of friction welded Mild Steel to Stainless Steel joints"**, The International Journal of Material and Design, Elsevier Publications, Vol. 30, Issue 7, pp. 2642-2646, August 2009.
27. Seshagiri Rao .V, Lakshminarayana, V, **"Design of Control circuit for arm control of Robot using eddy current Damping"** J. of Production Engg, IE (I), PP:15-21, V86, Sep, 05.
28. Seshagiri Rao .V, Lakshminarayana, V., **"Mathematical Modeling Of Simple Seam Tracking Process Applicable in Multi-Function Control Robotic Welding System"** J. of Production engg. of IE (I), V. 85, Sep'04, PP:20-26.

29. Seshagiri Rao .V, Lakshminarayana. V., **"Multi-Function Control System for Robotic Fire Detection: An Alternative Approach"** Institution of Engineers' J. of Production Engineering, Volt 83, P: 58 – 61, March' 2003.
30. Seshagiri Rao .V, Lakshminarayana, V ., **"Multi-Function approach to the Management of Technical Education", Volt 82,** PP:6-9, **May, 2001,** J. of IE(I)

National Journals:

1. Seshagiri Rao .V,Lakshminarayana, V ., "**Multi-Function approach to the Management of Technical Education**", Volt 82, PP:6-9, May, 2001, J. of IE(I)
2. Seshagiri Rao .V, Lakshminarayana . V., "**Multi-Function Control System for Robotic Fire Detection: An Alternative Approach**" Institution of Engineers' J. of Production Engineering, Volt 83, P: 58 – 61, March' 2003.
3. Seshagiri Rao .V, Lakshminarayana, V., "**Mathematical Modeling Of Simple Seam Tracking Process Applicable in Multi-Function Control Robotic Welding System**" J. of Production engg. of IE (I), V. 85, Sep'04, PP:20-26.
4. Seshagiri Rao .V, Lakshminarayana, V , "**Design of Control circuit for arm control of Robot using eddy current Damping**" J. of Production Engg, IE (I), PP:15-21, V86, Sep, 05.

International Conferences:

1. Seshagiri Rao .V, Lakshminarayana. V and Jolly Abraham, "**Multi-Function Control System For Welding Robots", Proc. Int. conference on "Trends in Industrial Measurements & Automation**", MIT, Chennai, PP.75 - 85, Jan 7 - 11, 1999
2. Seshagiri Rao .V and Lakshminarayana. V, "**Three Dimensional path tracking of Multi-functional Control Robotic arm in a Complicated welding Environment**" Proc. Int. conference on "Trends in Industrial Measurements & Automation", MIT, Chennai, PP.5.36 - 5.41, Dec, 2002.
3. Seshagiri Rao .V and Lakshminarayana. V, "**Performance Analysis of Multi-Function Control Robotic System Related to Welding Application**" Proc. Int. conference on "Trends in Industrial Measurements & Automation", MIT, Chennai, Dec. 2004.
4. Seshagiri Rao. V, D. Ananthapadmanaban and K. Prasad Rao, "**Opportunities and Challenges in Friction Welding of Dissimilar Materials**", Proc. of ECHDEM 2007, Sathyabama University, Chennai, pp. 108 – 111, 28-30 November 2007.
5. Seshagiri Rao. V et., al., "**Study of Process Parameters in Friction Stir welding of Dissimilar Aluminium Alloys**", Proc., of Int. Conference on Industrial Engineering and Operations Management, KaulaLumpore, Malaysia, pp. 22-27, January 2011.
6. Ananthapadmanaban D., Seshagiri Rao V., Prasad Rao K. and Rangan K. (2009), "**Some studies on friction welding of Ti-6Al-4V**', ICWET-2009, June11th to 13th, 2009 Ankara, Turkey, pp. 364-368.

National Conferences:

1. Seshagiri Rao, B.V.R Gupta and A. Jaykumar, "**Evaluation of Isolator an Alternate Approach**", Proc USE (Under water Science and engineering), N.S.T.L – Visakhapatnam, 1994.
2. SeshagiriRao.V, Lakshminarayana. V, and Jolly Abraham, "**Wear Design Coefficient of Gears in Water Medium**" , Proc. Of NACOMM 99,IIT, Bombay, 16-17th Dec,1999.
3. Seshagiri Rao. V,Lakshminarayana. V, and V. Ravi Shankar, "**Role of virtual Reality in Future Technical Education**", Proc. Of National Conference on 'Challenges of Engineering Education for the 21st Century', IE(I), 5-6th Feb, 2000.

4. SeshagiriRao.V, &Lakshminarayana. V, "**Arc Sensing in continuous Robotic arc Welding**", Proc. Of national conference on advanced Trends in Mechanical Engineering Research and Development, JNTU, Anantapur, PP 115-119, June 22-23rd, 2000.
5. Seshagiri Rao .V,&Lakshminarayana, V ., "**Robotic Fire Detection System**", Proc. of National Conference on Advances in Integrated manufacturing Systems (AIMS), 2-3rd Feb, 2001.
6. Seshagiri Rao. V&Lakshminarayana. V, "**Application of information Technology in Multi-Function Controlled Robotic Welding**" Proc. of National Conference on 'Advanced Trends in Mechanical Engineering, Research and Development, (MINAC) JNTU, Anantapur, AP, PP: 587-592, Dt. 21/12/2002.
7. Seshagiri Rao. V, D. Ananthapadmanaban and K. Prasad Rao, "**Trends in Modern Materials & Manufacturing**", Proceedings of ICMF -2008, Govt college of Engineering, Thrisur, pp. 207 – 210, 17-19 Jan. 2008.
8. Seshagiri Rao. V, and D. Ananthapadmanaban, "**Challenges in Welding of Aluminum and Its Alloys**", proc. of National Conference in Robotics, Precision Engineering & Manufacturing Techniques AIRPAM, MIT, Chennai, pp. 112 – 115.April 2008.
9. Ananthapadmanaban D., Seshagiri Rao V., Prasad Rao K. and Rangan K. (2009), "**Studies on flash formation during friction welding of dissimilar metals**", RTMT-09,National Level Conference, Anna University Chennai, Chennai, February 26th and 27th, 2009, pp. 27-30.
10. Ananthapadmanaban D., Seshagiri Rao V., Prasad Rao K. and Rangan K. (2009), **Methods of weld quality prediction during friction welding using flash parameters**, IPRoMM-2009, July 11th-13th,IIT,Madras, pp 23-28.
11. Ananthapadmanaban D., Seshagiri Rao V., Prasad Rao K. and Palanikumar K. (2010), **Friction Welding-An Environmentally friendly Technology**, EMMI-2010, Banaras Hindu University, 15thand 16th March, 2010, pp. 87-89.
12. Ananthapadmanaban D., Seshagiri Rao V., Prasad Rao K., Rangan K. and Palanikumar K. (2010), "**A Study of Shrinkage and weld time during friction welding of Mild Steel to Stainless Steel**", National Conference, Sathyabama University, August 9th, 2010, pp. 108-110.

8. Projects / Awards /Patents

Projects Completed : 03 (NRB & AICTE)

Awards Received : 04

Patents : 01

Projects

- Co-Principal coordinator for the project "**Friction welding of Dissimilar Metals** ", Sponsored by Naval Research Board, Ministry of Defense, with a grant in aid of Rs. 12 Lakhs.
- Principal coordinator for the project "**Modernization of SM Lab with latest equipment** ", Sponsored by AICTE, New Delhi, with a grant in aid of Rs. 10 Lakhs. Sanction Letter No. 8024/RID/BOR/MOD-829./2009-10 Dated 21.12.2009
- Principal coordinator for the project "**Modernization of IC Lab with latest equipment**" Sponsored by AICTE, New Delhi, with a grant in aid of Rs. 11.02 Lakhs. Sanction Letter No. 8024/RIFD/MOD-297/2010-11 Date of Sanction: 31-03-2011

Awards

- Best Research Paper Merit Certificate Award Winner for the Research Paper on "Multi-Function Control System for Robotic Fire Detection – An Alternative Approach," from Institution of Engineers for the year 2002 –03

- Best Research Paper & K.F. Anita Memorial Medal Award winner from Institution f Engineers (I) at their 20th Engineering Congress for the research on "Mathematical Modeling of Simple Seam Tracking Process Applicable in Multi-Function Control Robotic Welding System," awarded on 16/12/05 at Kolkata.
- Best Teacher Award in St. Joseph's College of Engineering, three times consequently for (1999,2000,2001)
- B.E Project Guided with Title "Fabrication and comparison of rotary valve engine with cam assembly engine" have got Innovative Student Projects Award 2009.

Patents

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status
1	Design of New Hydraulic Jack – Biped Jack	B. Ramesh P. Venkateshwaran Dr. Vaddi Seshagiri Rao Dr. A. Elaya Perumal	323/CHE/2014	-	India	Public view

9. FDP/Workshop

FDP Conducted : 04
FDP Attended : 05
Workshop Attended : 07

FDP conducted:

- Convenor for a Faculty Development Program on "Processing and Applications of Advanced Composite Materials" with a grant in aid of **Rs.6,32,050** from All India Council for Technical Education" New Delhi. Santion Letter No. RIFD/SDP/164/2010-11Dated 28.03.2011 (07th November 2011 to 19th November 2011)
- Convenor for a Faculty Development Program on "Renewable Energy based Cooling Systems- Opportunities and Challenges" with a grant-in-aid of **Rs.6,50,000** from All India Council for Technical Education" New Delhi. Sanction Letter No. F.No. 6-93/RIFD/FDP/P(2)/2013-14Dated 18.07.2013 (18th November to 29th November 2013)
- Coordinator for Faculty development Program on "Engineering Mechanics" Sponsored by Anna University, Chennai, with a grant of **Rs.90,000**, 2013.
- Coordinator for Faculty development Program on "Strength of materials" Sponsored by Anna University, Chennai, with a grant of **Rs.60,000**, 2014.

FDP attended:

- Two weeks Course on Modern Trends in Food Preservation Technology, Orgnasied by Anna University Chennai, 18th March to 29th March 1996.
- Two weeks Course on Tribo-design and Analysis, Orgnasied by I.I.T – Madras, 7th December to 18th December 1998.
- Two weeks Course on Simulation models in Engineering and Technology, Orgnasied by I.I.T – Madras, 12th March to 23rd March 2001.
- Two weeks Course on Finite Element Technique, Orgnasied by Anna University Chennai, 29th May to 10th June 2006.
- One week Course on Ansys Software, Training, Organised by Ansys Certified Training in Value Engineering, Bangalore, 30th April 2007 to 4th May 2007.

Workshop attended:

- One day work shop on Industry and Institute Interaction, Organized by A.I.C.T.E, February, 1996.
- Two days work shop on Reliability of renewable energy systems with special reference to wind energy, organised by Anna University, November 2000.
- Two days work shop on Creativity and Innovation in Class room Teaching for Technological Institutions, Organised by Vellore Institute of technology, February 2003.
- One day work shop on Environment & Pollution Awareness, organized by A.I.C.T.E, July 2004.

- Two days workshop on High Impact Presentation Skills, organized by Dale Carnegie Training, January 2008.
- Two days work shop on Micro Machining , Organised by N.I.T – Thirchy, December 2008.
- Two days work shop on International stress management association , 1st and 2nd August 2015, Chennai.

10. Membership with Technical Associations:

- Fellow of Institution of Engineers
- Life member, Indian welding Society
- Life Member, Indian Institute of Production Engineers
- Life Member, Indian Society for Technical Education

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

- *Best Research Paper Merit Certificate Award Winner* for the Research Paper on "Multi Function Control System for Robotic Fire Detection – An Alternative Approach," from Institution of Engineers for the year 2002 –03
- *Best Research Paper & K.F. Anita Memorial Medal Award winner* from Institution f Engineers (I) at their 20th Engineering Congress for the research on "Mathematical Modeling of Simple Seam Tracking Process Applicable in Multi Function Control Robotic Welding System," awarded on 16/12/05 at Kolkata.
- *Best Teacher Award in St. Joseph's College of Engineering, three times consequently for (1999,2000,2001)*