SRI SAI RAM ENGINEERING COLLEGE

DEPARTMENT OF MECHANICAL ENGINEERING

Name: Dr.N.Vinayaga Muruga Pandy	
Designation:	ASSOCIATE PROFESSOR
Qualification:	M.E. Ph.D
Area of Specialization:	MANUFACTURING SYSTEMS AND MANAGEMENT
Experience:	Teaching- 7 YEARS
	Industry:- 2 YEARS
Number of Workshops/ Conferences/ FDP Attended:	WORKSHOP- Nil FDP:27 NATIONAL/INT. CONFERENCE- 5
Publication:	Journal: National : Nil **International: 4**
	Conference: National: 2 **International: 5**
General	Completed NPTEL Domain in Robotics
Contact Details:-	Email:- nvmp.mech@sairam.edu.in Phone:- 9941313387

Staff Achievement	1. Achieved class topper in M.E. Manufacturing Systems and Management batch of 2010-2012 with GPA of 9.9, 9.95 and 10 (Out of 10) in first, second and third semester respectively and finally won Gold Medal award for securing First rank in the batch. 2. Received Gold Medal from CEG Alumni Association, Anna University for Best Outgoing Student in M.E. Manufacturing Systems and Management batch of 2010-2012. 3. Received Lean Six Sigma Green belt holder certificate. 4. Achieved class second topper in fifth Semester of B.E. Mechanical Engineering. 5. Obtained a final step score of 9.4 out of 12 in Stepathon 6 (Standardized test of English proficiency from THE HINDU group) which corresponds to Advanced level of English typical Global MNC's.

Professional Experience:

Sl. No	College/Organization	Designation	Period From To	Total period	Nature of work
1.	Sri Sai Ram Engineering College	Associate Professor	09.06.2022 – Till Date	3 year 9 Month	Teaching
2.	Dr.Mahalingam College of Engineering and Technology	Assistant Professor	03.09.2019 – 31.05.2022	3 Years	Teaching
3.	Thiagarajar College of Engineering	Assistant Professor	14.06.2012 – 26.07.2013	1 Year 1 Month	Teaching
4.	Sterlite Industries India Limited	Engineer	30.06.2008-10.07.2010	2 Years	Maintenance Engineer

PATENTS:

Applicant / Inventor	Title	Patent Adoption	Filed/ Published/ Granted	PatentNumber
Applicant– N.Vinayaga Muruga Pandy Department of Mechanical Engineering, Sairam Engineering College	"DESIGN AND DEVELOPMENT OF AUTOMATIC TOILET CLEANER"	-	Published	202341025631
Applicant– N.Vinayaga Muruga Pandy Department of Mechanical Engineering, Sairam Engineering College	"DESIGN AND DEVELOPMENT OF ADAPTIVE HANDHELD DRILLING MACHINE"	-	Published	202541100075

PAPERS PUBLISHED IN THE NATIONAL CONFERENCES:

1. Vinayaga Muruga Pandy N, Pandithevan P, 2017 Experimental investigation and analysis of torque in drilling human femoral bone. In Proceedings of the Indian Conference on applied mechanics (INCAM) 2017, MNNIT, Allahabad, 5-7 July 2017.

2. Raghavanantham S, Sampathkumar S, **Vinayaga Muruga Pandy N**, Srinivasan R. 2012. Online monitoring of grinding wheel loading using Infrared technique. In Proceedings of the National conference on Emerging Research and Advances in Mechanical sciences, Vellamal Engineering College, Chennai, March 23, 2012.

PAPERS PUBLISHED IN THE INTERNATIONAL CONFERENCES:

1.**Vinayaga Muruga Pandy N**, Ramakrishnan S, Non-Linear statistical shape modelling of femoral Shaft. In Proceedings of the International conference on recent advances in medical science and Technology, IIT Kharagpur, on 17-19th December 2025.

2.Vinayaga Muruga Pandy N. Experimental study and analysis of torque in drilling human femur cortical bone. In Proceedings of the Third International conference on Robotics, Intelligent Automation, and Control Technologies organized by SMEC, VIT Chennai on 23-25th September 2022.

3.Pandithevan P, Prasannavenkadesan V and **Vinayaga Muruga Pandy N**. Reconstruction of patient-specific human femur with surgical drilling temperature data: A methodology applicable for robotic surgery. In: Proceedings of the International Conference on Applied and Computational Mathematics, November 23-25, 2018, IIT Kharagpur, India.

4.Pandithevan, P. and **Vinayaga Muruga Pandy N**., 2017. Reconstruction of subject-specific human femur with surgical drilling force data: an experimental study to operate in the radial direction: In Proceedings of the XXVI Congress of the International Society of Biomechanics (ISB) Brisbane Australia July 22-27.

5.Pandithevan P, **Vinayaga Muruga Pandy N**. 2016. Modelling and analysis of metal drilling process using experimental study and finite element method. In Proceedings of the Sixth International Congress on Computational Mechanics and Simulation, IIT Bombay, India, June 27-July 1.

INTERNATIONAL CONFERENCES ATTENDED:

1. Vinayaga Muruga Pandy N presented a paper titled , Non-Linear statistical shape modelling of femoral Shaft. In Proceedings of the International conference on recent advances in medical science and Technology, IIT Kharagpur, on 17-19th December 2025

2. **Vinayaga Muruga Pandy N**. presented a paper titled **"**Experimental study and analysis of torque in drilling human femur cortical bone". In Proceedings of the Third International conference on Robotics, Intelligent Automation, and Control Technologies organized by SMEC, VIT Chennai on 23-25th September 2022.

3. **Vinayaga Muruga Pandy N** presented a paper titled **"**Modelling and analysis of metal drilling process using experimental study and finite element method" In Proceedings of the Sixth International Congress on Computational Mechanics and Simulation, IIT Bombay, India, June 27-July 1, 2016.

PAPERS PUBLISHED IN THE INTERNATIONAL JOURNALS:

1. **Vinayaga Muruga Pandy N**.,2023 "Experimental study and analysis of torque in drilling of human femur cortical bone". In AIP Conference Proceedings Vol. 2946, No. 1. AIP Publishing.

2. Pandithevan P and **Vinayaga Muruga Pandy N**.,2020 Multi-objective optimization for surgical drilling of human femurs with experimental validation: A methodology for strongest implant fixation, Journal of Mechanics in Medicine and Biology 2020 February; 20(01):1950072. (Indexed in SCI Expanded; Impact Factor 0.9).

3. Pandithevan P, **Vinayaga Muruga Pandy N** and Prasannavenkadesan, V., 2018 Investigation of bone drilling for secure implant fixation in human femurs: Taguchi optimization and predictive force models with experimental validation. Journal of Mechanics in Medicine and Biology. 2018 September; 18(06):1850061. (Indexed in SCI Expanded; Impact Factor 0.9).

4. Pandithevan P, **Vinayaga Muruga Pandy N** and Palanivel C., 2018 Development of In-situ Temperature prediction models from cadaveric human femur for bone drilling. Journal of

Mechanics in Medicine and Biology. 2018 May; 18(03):1850026. (Indexed in SCI Expanded; Impact Factor 0.9).

List of Funded projects

Sl.No.	Title	Sponsoring Agency	Period	Amount (Rupees)	Project status
1.	Design and development of novel orthopaedic surgical drilling machine suitable for minimally invasive surgery	ANRF SERB TARE	3 years	Rs.18,30,000	On Going

Faculty/Staff Development /Training Program (Orientation programmes) Attended:

Sl.No.	Date	FDP Title	Organized by (Department & College Name)
1.	14.10.2024 19.10.2024	Progresses in Mehanical Engineering	SRM Institute of science and technology
2.	25.03.2024 29.03.2024	Recent trends and advances in manufacturing engineering	Sri Sai Ram Engineering College
3.	10.07.2023 12.07.2023	3 days face to face UHV FDP	Sri Sai Ram Engineering College

Sl.No.	Date (From - To) (20.03.2025 - 25.03.2025)	Number of Days	Number of Weeks (4W / 8W / 12W) NPTEL	FDP / STTP Title	Organized by (Department & College Name)
1.	Jul-Sep 2024	(8 week course)	8	Robotics	NPTEL, IIT KHARAGPUR, 76% SILVER
2.	Jul-Oct 2024	(12 week course)	12	Digital Image Processing	NPTEL, IIT KHARAGPUR, 71% ELITE
3.	Jan- April 2025	(8 week course)	8	Wheeled Mobile Robots	NPTEL, IIT MADRAS,ELITE
4.	Jan- April 2025	(12 week course)	8	Machine learning	NPTEL, IIT MADRAS
5.	Jul-Sep 2024	(8 week course)	8	Robotics	NPTEL, IIT KHARAGPUR, 76% SILVER
6.	Jan-Apr 2024	12	12	Sensors and Actuators	NPTEL, IISC BANGALORE, 67% ELITE
7.	Jul-Oct 2023	(12 week course)	12	Industrial Robotics : Theories for Implementation	NPTEL, IIT KHARAGPUR, 60% ELITE

8.	Jan-Apr 2024	(12 week course)	12	Industrial Automation and Control	NPTEL, IIT KHARAGPUR, 57%
9.	Aug-Oct 2023	8 week course	8	Accreditation and Outcome Based Learning	NPTEL, IIT KHARAGPUR, 64% ELITE

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

1. Member in "Institute of Electrical and Electronics Engineers (IEEE)".