# CURRICULUM VITAE Professor Dr T R Vijayaram

- Name and correspondence address PROFESSOR DR T R VIJAYARAM 6C 401 PLAZA PRISTINE ACRES PHASE 1, NOOKKAMPALAYAM ROAD, PERUMBAKKAM, CHENNAI 600073 TAMIL NADU INDIA
- 2. Email, Mobile and Skype Contact Details E-mail: <u>vijayaram1@gmail.com</u> Mobile: 0091 9205855280 Skype ID: drtrvijayaram
- Current Position and Institution: Professor, Department of Mechanical Engineering, BIST, BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH, BIHER,
  SELAIYUR CHENNAI 600073 TAMIL NADU INDIA
  - 4. **Date of Birth** : 28/05/1965

э.	Academic Qu	anneation		
	Degree	Year	Subject	University/Institution
1.	B.E	1988	Mechanical Engineering	Madurai Kamaraj University, India
2.	M.E	1990	Industrial Metallurgy	Bharathiyar University, India
3.	PhD	2006	Mechanical Engineering	UPM, Universiti Putra Malaysia, Malaysia
4.	MBA	2016	Education Management	University of Madras, India
5.	МА	2019	Sociology	University of Madras, India

#### 5. Academic Qualification

6. **Ph.D. thesis title, Guide's Name, Institute/Organization/University, Year of Award**. PhD Thesis Title: Properties of Metal matrix Composite of Aluminium – 11.8% Silicon Reinforced with different particulates

### 7. NPTEL COURSES COMPLETED AND OBTAINED SCORE CARDS: 19 NATIONAL PROGRAM ON TECHNOLOGY ENHANCED LEARNING CONDUCTED BY IITS AND IISc Bangalore (19 COMPLETED, TOPPER in 5 COURSES)

Serial No.	Name of the NPTEL Course	Month / Year	Final score obtained out of 100 / Successfully completed / Elite / Elite Silver / Elite Gold	TOPPER if any
1	Principles of metal forming technology	Sep-Nov 2020	68 /100 ELITE	Not applicable
2	Fundamentals of Manufacturing processes	Sep-Dec 2020	80/100 Elite Silver	Not applicable
3	Powder metallurgy	Sep-Dec 2020	51/100 Successfully completed	Not applicable
4	Processing of polymers and polymer composites	Jan-Mar 2021	90/100 Elite Gold	Not applicable
5	Principles of casting technology	Jan-Mar 2021	81/100 Elite Silver	TOPPER
6	Product design and manufacturing	Jan-Apr 2021	67/100 Elite	Not applicable
7	Welding processes	Jan-Apr 2021	68/100 Elite	Not applicable
8	NBA Accreditation and Teaching- Learning in Engineering (NATE)	Jan-Apr 2021	75/100 Elite Silver	Notapplicale
9	Failure analysis and prevention	Feb-Apr 2021	85/100 Elite Silver	Not applicable
10	Welding application technology	Aug-Oct 2021	73/100 Elite	Not applicable

11	Ergonomics workplace analysis	Aug-Sep 2021	62/100 Elite	Not applicable
12	Ecology and environment	Aug-Oct 2021	68/100 Elite	Not applicable
13	Joining technologies for metals	Aug-Oct 2021	81/100 Elite Silver	TOPPER
14	Surface engineering of nanomaterials	Jan-Mar 2022	78/100 Elite Silver	TOPPER
15	Introduction to machining and machining fluids	Jan-Mar 2022	82/100 Elite Silver	TOPPER
16	Applied ergonomics	Jan-Mar 2022	68/100 Elite	Not applicable
17	Carbon materials and manufacturing	Jan-Apr 2022	58/100 Successfully completed	Not applicable
18	Air pollution and control	Jan-Apr 2022	81/100 Elite Silver	TOPPER
19	Fundamentals of Surface Engineering: Mechanisms, Processes and Characterizations	Jan-Apr 2022	79/100 Elite Silver	Not applicable

Note: My name is listed as one of the Mechanical Engineering Discipline Star and Super star in the NPTEL Website

#### 8. ATAL FDP COURSES COMPLETED AND OBTAINED CERFIFCATES: 07 AICTE TRAINING AND LEARNING ACADEMY FDP COURSES CONDUCTED BY AICTE New Delhi

Serial No.	Name of the ATAL FDP course	Month / Year	ATAL Certificate Number
1	Alternate fuels	21-09-2020 to 25-09-2020	ATAL/2020/159928 5192
2	Novel materials	05-10-2020 to 09-10-2020	ATAL/2020/159922 0806

3	FRP composites	18-01-2021 to 22-01-2021	ATAL/2020/160863 2459
4	Additive manufacturing	16-02-2021 to 20-02-2021	ATAL/2021/160973 1556
5	NBA Accreditation process	28-06-2021 to 02-07-2021	ATAL/2021/162116 7986
6	Research ethics	07-09-2021 to 11-09-2021	ATAL/2021/162973 1222
7	Metallurgical testing and failure analysis of metals	13-09-2021 to 17-09-2021	ATAL/2021/162588 6762

### 9. NITTTR CHENNAI FDP TRAINING PROGRAMS COMPLETED (7 COMPLETED)

National Institute of Technical Teachers Training and Research, Chennai, Ministry of Education, Government of India

Serial	Name of the	Date / Month / Year	NITTTR FDP
No.	NITTTR FDP		Training
	<b>Training Program</b>	to	Program
		Date / Month / Year	Certificate
			Number
1	Leadership and	20-12-2021 to 24-12-2021	2021/FDPOM-
	teamwork for		114/04
	performance excellence		
2	Guidance and	17-01-2022 to 21-01-2022	2021/FDPOM-
	counselling		124/16
3	Non Traditional	31-01-2022 to 04-02-2022	2021/FDPOM-
	Machining		132/01
4	Happiness and	07-02-2022 to 11-02-2022	2021/FDPOM-
	wellbeing		134/26
5	Instructional	14-02-2022 to 18-02-2022	2021/FDPOM-
	design and delivery system		138/17
6	Smart	21-02-2022 to 25-02-2022	2021/FDPOM-
	manufacturing		141/35
7	Employability	14-03-2022 to 18-03-2022	2021/FDPOM-
	skills		148/07

#### **10.ISBN NUMBER OBTAINED FOR 5 BOOKS**

Raja Rammohun Roy National Agency for ISBN, Department of Higher Education, Ministry of Education, Government of India

Serial No.	TITLE OF THE BOOK	ALLOTED ISBN NUMBER
1	Fundamentals of unconventional machining process	3445/ISBN/2022/A
2	Metallurgy and materials engineering basics	4298/ISBN/2022/A
3	Engineering metrology and measurement systems	4955/ISBN/2022/A
4	Nanotechnology and nanomaterials for engineers	5527/ISBN/2022/A
5	Composite materials for engineers	6055\ISBN/2022/A

#### **11.**Academic Editor, IntechOpen Limited, London, UK, 2022

SERIAL NO.	NAME OF THE BOOK/ RESEARCH BASED /ISBN NUMBER	ROLE	STATUS	EXPECTED DATE OF BOOK PUBLICATION
1	CASTING PROCESSES/ ISBN: 978-1-80355- 496-9	ACADEMIC EDITOR	COMPLETED	AUGUST 2022
2	Cast Iron- Production, Properties, Characterization and Casting Defects Analysis	Academic Editor	On going	October 2022

12. WEBINERS ATTENDED: 340

13. WEBINARS PRESENTED: 10

14. Scopus ID: 37075951900

15. ORCHID ID: 0000-0003-3481-4064

16. Google scholar: https://scholar.google.com/citations?user=uIQ1CrEAAAAJ&hl=en

17. Research gate: https://www.researchgate.net/profile/Dr-Thoguluva-Vijayaram

18. Linked in: https://www.linkedin.com/in/prof-dr-t-r-vijayaram-be-me-phd-mba-ma-lmiste-m-b46900a9/

Serial Number	Positions held	Name of the Institute	From	То	Pay Scale PER MONTH, INR
1	Professor, Department of Mechanical Engineering	BIHER SELAIYUR CHENNAI 600073 India	02 /09/2020	CURRENT POSITION	1,50,000
2	Guest Faculty Professor in Mechanical Engineering	LICET, Loyola ICAM (France) College of Engineering and Technology, Loyola College Campus, Nungambakkam, Chennai, India	February 2019	April 2019	1,00,000
3	Director (Research) & Full Professor in Mechanical Engineering	Galgotias University, Greater Noida, UP, Uttar Pradesh, India	June 2016	February 2018	2,00,000
4	Professor in Mechanical Engineering	SMBS, VIT University, Chennai Campus, Vandalur- Kelambakkam Road, Melakottaiyur, Chennai 600127, Tamil Nadu	June 2013	June 2016	1,20,000
5	Principal Lecturer in Mechanical Engineering	MMU, Multimedia University, Melaka Campus, 75450 Melaka, Malaysia	December 2010	December 2012	2,25,000

# 19. Work experience (in chronological order) Total work experience (Teaching, Research and Consultancy) – 25 years

6	Senior Lecturer in Manufacturing Engineering	UTeM, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia		October 2010	1,60,000
7	Lecturer in Mechanical Engineering	INTI College Sarawak, Kuching, Sarawak, East Malaysia	August 2002	August 2003	80,000
8	Assistant Professor in Production Engineering	Dr MGR Engineering College, Chennai	December 2000	August 2002	15,000
9	Metallurgical Engineering Consultant	Soft-CADD Consultancy Services, Chennai	February 1999	November 2000	12,000
10	Senior Project Officer	IIT Madras	May 1996	January 1999	9500
11	Lecturer in Mechanical Engineering	KLN College of Engineering, Engineering, Madurai	November 1994	July 1995	2600
12	Metallurgical Engineer	Gara Foundry, Madurai	May 1992	October 1994	2400
13	Researcher in metallurgical engineering	IIT Madras	July 1990	February 1992	1800

#### 20. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

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S.No	Name of Award	Awarding Agency	Year
1	PhD Research Fellowship	UPM, Malaysia	2003-2006
2	Rector Grant Researcher	GENOA UNIVERSITY,	2006-2007
	Award	ITALY	
3	SCIENTIST AWARD in	APEX Committee, VIRA 2016, Annual Research Meet, ARM 2016, Le Meridian Chennai, India	December 2016

#### 21. Educational Qualification

Ph.D (Mechanical Engineering, Universiti Putra Malaysia, UPM, Malaysia), 2006 Rector Research Fellow in Metallurgy (Genoa University, Genoa, Italy), 2007 M.E (Industrial Metallurgy) (Bharathiyar University, Coimbatore, India), 1990 B.E (Mechanical Engineering) (Madurai Kamaraj University, MKU, India), 1988 MBA (Educational Management, University of Madras, Chennai, India), 2014 MA (Sociology, University of Madras, Chennai, India), 2017

#### 22. Research Publications:

Refereed Journals: 120 Conferences: 67 Symposium: 05 Online articles: 15 Broadsheet articles: 16 Book Chapter: 1 Book edited: 1

# 23. Invited or Keynote Lectures In International Conferences:

- Chairman, Session, NMC, NATIONAL METALLURGICAL CONFERENCE, UTM, JOHOR, MALAYSIA, 2007
- Invited to present a paper by Infineon on March 2011, MMU, Melaka, Malaysia
- Best research paper award, UTeM, Melaka, Malaysia
- Key note speaker and Chairman for the sessions, CSM 2013 International Conference, Hong Kong

# 24. Funded Research Projects

Current FRGS / Fundamental Research Grant Award from MOHE, Ministry of Higher Education Malaysia / Malaysian Ringgit RM 120,000 (INR 24 Lakhs) FRGS /1/2011/TK/MMU/02/05 Project Leader: Dr Thoguluva Raghavan Vijayaram

Project Title: Ladle Metallurgy of LM6 alloys by hybrid modifiers Approved Date: July 2011

Current TM R and D / Telekom Malaysia Research Grant RM 297,000 (INR 60 Lakhs)Project Leader: Dr Thoguluva Raghavan Vijayaram

Project Title: Fabrication of High Performance Cast Irons for EMI Reduction in TelecommunicationSystems, Approved Date: October 2011

Co-Investigator of the FRGS Project entitled "Influence of Retrogression and Reaging (RRA) Heat Treatment process on microstructure, mechanical properties and stress corrosion cracking (SCC) Susceptibility of Aluminum Alloy 7075 FRGS/2008/FKP (3) / Research Grant RM 90,000 (INR 18 Lakhs)

Short-term research grants at UTeM, Malaysia, Effect of lead addition in LM6 alloy (Completed)/ Principal Investigator (Research grant INR 2 Lakhs)

# 25. Research Supervision (National and Overseas)

- Number of PhD's supervised: 4
- Number of Master's by Research supervised: 7
- Number of M.Tech project work supervised: 17
- Number of B.Tech Projects supervised: 63

### PhD Research Guidance/Supervision as Co-Guide (Co-Guide for 2 PhD Research Scholars)

Serial	Name of the	Full time	Department	Registered date
No.	PhD Research scholar and Register Number	or Part time		and year
1	B.Bala Murugan D21ME505	Part time External	Mechanical Engineering	19-02-2022
2	E.Jacob Evanson Solomon D21ME004	Part time External	Mechanical Engineering	02-12-2021

# 26. Memberships in Professional and Scientific bodies

- > FIE Fellow of The Institution of Engineers, IIE Kolkata, India
- MIIF, Member of The Institute of Indian Foundry men, Kolkata, India
- MISTE, Member of The Indian Society for Technical Education, India
- MIIPE, Member of The Indian Institution of Production Engineers, India
- MSAE, Member of The Society of Automotive Engineers, India Chapter, India
- Fellow of The Institute of Research Engineers and Doctors, IRED, USA
- Chartered Engineer, The Institution of Engineers, Kolkata, India

# 27. Achievements and awards

- PhD Research Fellowship, UPM, Malaysia
- Rector Grant Researcher Award, GENOA UNIVERSITY, ITALY
- DISTINGUISHED SCIENTIST AWARD in Metallurgical and Materials Engineering, APEX Committee, VIRA
- 2016, Annual Research Meet, ARM 2016, Le Meridian Chennai, India.
- Developed Lead added LM6 alloy for bearing applications
- > Conducted tribological research studies on lead added LM6 alloys for antifriction applications.

### 28. Research

### Thrust research areas

Foundry Technology, Ladle Metallurgy and Molten Metal Treatment, Metal Casting Solidification and Simulation. Mechanical, manufacturing, materials and metallurgical engineering. Metal matrix composites

### **Specific Research Interests**

Materials Characterization, Mechanical Testing of Materials, Heat Treatment of Metals and Alloys, Ferrous and Non ferrous metallurgy, Powder metallurgy, Solidification processing, NDT, Special Casting Techniques, Squeeze Casting Technology, Computer Simulation of casting solidification, New materials and process development, especially aerospace engineering materials, Solidification processing of metals, alloys and composites, microgravity solidification, die casting die design, Metallography, microstructureproperty Correlation ship, Nano composites

Serial	Journal details	Status
Number		
1	K. Arunprasath, M. Muthumalai , S. Kavitha, <b>T. R.</b> <b>Vijayaram</b> , Investigation of Cryogenic thermal conductivity of AA7115 subjected to various heat treatments, Proceedings of the International conference on Advanced in Materials Research 2.0, <u>www.scientific.net</u> , June 2022, Accepted, Scopus	Accepted
2	<b>T.R.Vijayaram</b> , M.P.Natarajan, M.Ramarao, D.Ananthapadmanaban, Quenching of EN-8 Medium Carbon Steel in Salt Bath of Different Concentrations, International Journal of Vehicle Structures & Systems, ISSN: 0975-3060 (Print), November 2021, ACCEPTED, IN	Accepted, In Press / Published in August 2022 Volume

# 29. LIST OF PUBLICATIONS RECENT PUBLICATIONS

	PRESS, Available online at <u>www.maftree.org/eja</u> , Scopus	
3	D.Ananthapadmanaban, Joshua Praveen, <b>T.R.Vijayaram</b> , M.P.Natarajan, M.Ramarao, Study on the Mechanical properties of INCONEL 625 Alloy in the Cast and Extruded conditions, International Journal of Vehicle Structures & Systems, ISSN: 0975-3060 (Print), November 2021, ACCEPTED, IN PRESS. Available online at <u>www.maftree.org/eja</u> , Scopus	Accepted, In Press / Published in August 2022 Volume
4	Balambica, V., <b>Vijayaram, T.R</b> ., Achudhan, M., Deepak, V., Ganesan, M. (2022). Design and Implementation of Automatic Goggle Detector for Safety Measure. In: Mekhilef, S., Shaw, R.N., Siano, P. (eds) Innovations in Electrical and Electronic Engineering. ICEEE 2022. Lecture Notes in Electrical Engineering, vol 894. Springer, Singapore. <u>https://doi.org/10.1007/978-981-19-1677-</u> 9 67, <u>https://link.springer.com/chapter/10.1007/978-</u> 981-19-1677-9 67, SCOPUS INDEXED	Published
5	<b>T.R.Vijayaram</b> , M.P.Natarajan, M.Ramarao, D.Ananthapadmanaban, Titanium and Titanium Alloys: Advanced Materials for Engineering Industries, Compliance Engineering Journal, ISSN NO: 0898-3577, Volume 12, Issue 10, 2021, pp: 116-127	Published

### **30.** PAPERS PUBLISHED IN International and National journals

• DGR Sharma, Thoguluva Raghavan Vijayaram, Development of Indian casting industry, Indian foundry Journal, volume 37, number: 8, pp: 35-40, August 1991, ISSN : 0379 - 5446

• Thoguluva Raghavan Vijayaram, An experimental investigation to measure and improve the surface finish of grey iron castings in a modern foundry, Indian Foundry Journal, volume 46, number: 4, pp: 15-18, April 2000, ISSN : 0379 - 5446

• Thoguluva Raghavan Vijayaram, A study on the reduction of rejection rate of castings in a grey iron foundry, Indian foundry Journal, volume 46, number:6, pp:20-25, June 2000, ISSN : 0379 - 5446

• Thoguluva Raghavan Vijayaram, Quality control record maintaining techniques and quality control scrap prevention in foundries, Indian Foundry Journal, volume 46, number: 9, pp: 17-24, September 2000, ISSN: 0379-5446

• Thoguluva Raghavan Vijayaram, A brief overview of the scope and application of industrial mathematics, INTI Journal, Malaysia, volume 1, number: 4, pp: 265-268, March 2004, ISSN: 1675 -0284

• Thoguluva Raghavan Vijayaram, Advances in squeeze casting technique for processing discontinuous ceramic fibre reinforced metal matrix composite materials, INTI Journal, Malaysia, volume 2, number: 1, pp:649-654, March 2006, ISSN : 1675 -0284

• Thoguluva Raghavan Vijayaram, Computer simulation of solidification of castings processed in metallurgical engineering foundries, Indian Foundry Journal, volume 51, number 4, pp: 35-39, April 2005, ISSN: 0379 - 5446

• Thoguluva Raghavan Vijayaram, Technological advances in squeeze casting technique for processing discontinuous ceramic fibre-reinforced metal matrix composite materials by liquid metallurgy route, Indian Foundry Journal, volume 51, number: 6, pp: 23- 28, June 2005, ISSN: 0379 - 5446

• Thoguluva Raghavan Vijayaram, Designing and implementing advanced engineering education system for the twenty first century, Journal of Technical and Vocational Education, TTTI, Technical Teachers Training Institute, Taramani, Chennai, India, volume 22, number: 1, pp: 1-6, June 2005, ISSN: 0971-8508

• Thoguluva Raghavan Vijayaram, Mechanical property investigation of LM6 alloy castings manufactured with the aid of casting solidification simulation technology, Indian Foundry Journal, volume 51, number: 11, pp: 30-34, November 2005, ISSN: 0379 - 5446

• Thoguluva Raghavan Vijayaram, Effect of some variables on properties of green sand moulding in a ferrous foundry, Indian Foundry Journal, volume 52, number: 2, pp: 41-45, February 2006, ISSN: 0379 – 5446

• Thoguluva Raghavan Vijayaram, Shamsuddin Sulaiman, AMS Hamouda, MHM Ahmad, Foundry quality control aspects and prospects to reduce scrap rework and rejection in metal casting manufacturing industries, Journal of Materials Processing Technology, JMPT, Elsevier, UK, 178 (2006), September 2006, pp39-43, ISSN: 0924-0136

• Thoguluva Raghavan Vijayaram, Shamsuddin Sulaiman, AMS Hamouda, MHM Ahmad, Fabrication offibre reinforced metal matrix composites by squeeze casting technology, Journal of Materials Processing Technology, JMPT, Elsevier, UK, 178 (2006), September 2006, pp34-38, ISSN: 0924-0136

• Thoguluva Raghavan Vijayaram, Shamsuddin Sulaiman, AMS Hamouda, MHM Ahmad, Numerical simulation of casting solidification in permanent metallic molds, Journal of Materials Processing Technology, JMPT, Elsevier, UK, 178(2006), September 2006, pp29-33, ISSN: 0924-0136

• Thoguluva Raghavan Vijayaram, Materials handling technology and significance of expert systems to select appropriate handling equipments in engineering industries: A review, JSIR, Journal of scientific and Industrial Research, volume 65, number: 8, pp: 619-624, August 2006, ISSN: 0022 - 4456

• Thoguluva Raghavan Vijayaram, Surface roughness estimation by mechanical measurement methodology, Indian Foundry Journal, volume 52, number: 9, pp: 27-32, September 2006, ISSN: 0379 -5446

• Thoguluva Raghavan Vijayaram, Shamsuddin Sulaiman, AMS Hamouda, MHM Ahmad, Processing, properties and metallographic studies of combined tungsten carbide and aluminium silicate particulate reinforced aluminium-11.8% silicon alloy matrix hybrid composite castings, Indian Foundry Journal, ,volume 53, number:2, pp: 33-41, February 2007, ISSN : 0379 – 5446

• Thoguluva Raghavan Vijayaram, Ryspek Usubamatov, Quality machining of straight tooth bevel gears to avoid tooth profile deviation based on an analytical approach solution, Journal of technology management & entrepreneurship, JTME, UTeM, Malaysia, Vol. 6 2007, ISSN :1675 - 8404

• AMS Hamouda, S.Sulaiman, Thoguluva Raghavan Vijayaram, M.Sayuti, MHM.Ahmad, Processing and Characterization of particulate reinforced aluminium silicon matrix composite, JAMME, Journal of achievements in materials and manufacturing engineering, UK, Volume 25, Issue2, December 2007, ISSN :1734- 8412.

• Thoguluva Raghavan Vijayaram, Sivarao, Surface Finish Investigation on Anchor Shaped Lead Castings, Indian Foundry Journal, IFJ, Kolkata, India, July 2008, ISSN : 0379 - 5446

• Thoguluva Raghavan Vijayaram, Energy conservation methods in foundries, Indian Foundry Journal, IFJ, August 2008, ISSN: 0379 - 5446

• Thoguluva Raghavan Vijayaram, Manufacturing of Fluka-Graphite Particulate Reinforced Aluminium - 11.8% Silicon Alloy Composite Castings, Foundry Journal, September-October issue 2008.

• Thoguluva Raghavan Vijayaram, Effect of Pressure on Mechanical Properties and Microstructure during the Solidification Processing of LM6 Alloy, Indian Foundry Journal, Kolkata, India, November 2008, ISSN : 0379 -5446

• Thoguluva Raghavan Vijayaram, Foundry Science of Casting Solidification and Simulation Technology, Foundry Journal, Volume. XX, No.6, November -December 2008.

• Thoguluva Raghavan Vijayaram, Fabrication, thermal properties determination and metallography of quartz particulate reinforced aluminium-11.8% silicon alloy matrix composites processed in grey cast iron mold by stir casting technology, Foundry Journal, January- February 2009.

• Thoguluva Raghavan Vijayaram, Metal Casting Solidification Simulation Technology, Journal of Advanced Manufacturing Technology, UTeM, Melaka, Malaysia, March 2009, ISSN : 1985 – 3157

• Thoguluva Raghavan Vijayaram, Foundry metallurgy of silicon dioxide particulate reinforced LM6 alloy matrix composites, studies on tensile properties, and fractography, Indian Foundry Journal, IFJ, March 2009, ISSN : 0379 - 5446

• Thoguluva Raghavan Vijayaram, Foundry Pollution Prevention and Emission Controlling Techniques Adopted in Metal Casting Industries, Foundry Journal, Ahmedabad, India, May-June 2009.

• Thoguluva Raghavan Vijayaram, The Prospects, Role and Application of Computers in Metal CastingIndustries, Indian Foundry Journal, June 2009, ISSN : 0379 – 5446

• Sivarao and Thoguluva Raghavan Vijayaram, Determination of tensile, flexural properties and microstructural characterization of calcium carbonate filler reinforced polypropylene matrix composites, Transactions of IIM, Indian Institute of Metals, June 2009, ISSN : 0972 -2815, SPRINGER

• Ryspek Usubamatov, Thoguluva Raghavan Vijayaram, Hamid F., Usubamatova A. "Tolerances of Linear, Angular Sized Parts and Feeders for Reliable Assembly Processes in Precision Engineering, International Journal on design and manufacturing technologies, ISSN 0973 -9106, Satyabama University, Chennai, Volume 3, Number 1, January 2009.

• Thoguluva Raghavan Vijayaram, A Technical Review on Rubber, International journal on design and manufacturing technologies, ISSN 0973 -9106, Satyabama University, Chennai, India Volume 3, Number 1, January 2009.

• Ryspek Usubamatov, Thoguluva Raghavan Vijayaram, Usubamatova .A, Reliability Engineering on Feeding Systems in Automatic Machines of High Production Capacity, International journal on design and manufacturing technologies, ISSN 0973 -9106, Satyabama University, Chennai, India, Volume 3,Number 2, July 2009.

• Thoguluva Raghavan Vijayaram, Heat Treatment of Lead Castings, Indian Foundry Journal, IFJ, Volume 56, Number 6, June 2010, ISSN : 0379 – 5446

• Thoguluva Raghavan Vijayaram, and S. Thiruchitrambalam, Rheocasting and Thixocasting: Semisolid casting Technologies, Indian Foundry Journal, August 2010, ISSN: 0379-5446.

• Thoguluva Raghavan Vijayaram, Modernization in jobbing and captive foundries, Journal of advanced manufacturing technology, UTeM, 76109, Melaka, Malaysia, 2010, ISSN: 1985 -3157.

• Thoguluva Raghavan Vijayaram and S. Thiruchitrambalam, Effect of lead addition on LM6 alloy castings, Indian Foundry Journal, volume 56, number: 10, October 2010, ISSN : 0379 -5446.

• Sayuti, M, S. Sulaiman, T.R, Vijayaram, B.T.H.T Baharudin, M.K.A, Arifin, The Influence of Mechanical Vibration Moulding Process on Thermal Conductivity and Diffusivity of Al-TiC Particulate Reinforced Composites, Advanced Materials Research, ISSN: 1662-8985, Trans Tech Publications, Zurich, Switzerland, Vols. 311-131 (2011) pp 3- 8, August 2011.

• Mohd Sayuti, Shamsuddin Sulaiman, B.T.H.T. Baharudin, Mohd Khairol Anuar Mohd Arrifin, T.R. Vijayaram, S. Suraya, Effect of Quartz-Silicon Dioxide Particulate on Tensile Properties of Aluminium Alloy Cast Composites, Composite Science and Technology, 2011, Key Engineering Materials, Volumes: 471-472, 727-732, February 2011.

• Azhar, Shamsuddin Sulaiman, B.T.H.T. Baharudin, Mohd Khairol Anuar Mohd Arrifin, T.R. Vijayaram, The Effect of Bentonite Clay on Green Compression Strength for Tailing Sands from Old Tin Mines in Perak State, Malaysia for Making Green Sand Casting Mould, Composite Science and Technology, 2011, Key Engineering Materials, Volumes: 471-472, 769-774, February 2011.

• M. Sayuti, Suraya S,S. Sulaiman, T.R. Vijayaram, M.K.H. Arifin, B.T.H.T. Baharudin, Thermal Investigation of Aluminium "C 11.8% Silicon (LM6) Reinforced SiO2 Particles, Advanced Materials Research, ISSN: 1662-8985, Trans Tech Publications, Zurich, Switzerland, Vols. 264-265 (2011) pp : 620-625, June 2011.

• Sayuti, M,S. Sulaiman, B.T.H.T, Baharudin, M.K.A, Arifin, Vijayaram.T.R, and Suraya, S, Influence of Mechanical Vibration Moulding Process on the Tensile Properties of TiC Reinforced LM6 Alloy Composite Castings, Applied Mechanics and Materials, ISSN: 1662-7482, Trans Tech Publications, Zurich, Switzerland, Vols. 66-68 (2011) pp 1207- 1212, July 2011.

• Thoguluva Raghavan Vijayaram, Design and Development of a New Hybrid Composite Material, Journal of Technical and Vocational Education, JTVE, ISSN 0971 °C 8508, NITTTR, National Institute of Technical Teachers Training AND Research, Ministry of Human Resource Development, Chennai 600113, India, July 2011.

• Thoguluva Raghavan Vijayaram, Fabrication Methods, Mechanical Properties, and Industrial Applications of Metal Matrix Composite Materials, Feature Article, Jurutera, The Monthly Bulletin of the Institution of Engineers, IEM, Malaysia, ISSN 0126-9909, Dimension Publishing, Puchong, Selangor, Malaysia, August 2011.

• Thoguluva Raghavan Vijayaram, Modernisation and Technology Upgradation in Foundries, Indian Foundry Journal, IFJ, ISSN: 0379 - 5446, Volume 57, No.7, July 2011.

• Thoguluva Raghavan Vijayaram, Light Weight Graphite Particulate Reinforced Aluminium Silicon Alloy Matrix Composite Castings, Indian Foundry Journal, IFJ, Volume 57, Number 9, September 2011, ISSN: 0379 - 5446.

• Thoguluva Raghavan Vijayaram, Metal Casting Dies, Indian Foundry Journal, IFJ, Volume 57, Number 10, October 2011, ISSN: 0379 -5446.

• Thoguluva Raghavan Vijayaram, Robots and Robotics in Foundries, METAL WORLD NEWS DIGEST, (ISO 9001: 2008 Certified), Mumbai, India, Volume 11, Number 01, January 2012.

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### 34. Book Chapter and Book Edited

- M. Sayuti, S. Sulaiman, T.R. Vijayaram, B.T.H.T Baharudin and M.K.A. Arifin, Manufacturing and Properties of Quartz (SiO2) Particulate Reinforced Al-11.8%Si Matrix Composites, Chapter 18, pp: 411-436, Composites and Their Properties, ISBN 978-953-51- 0711-8, 2012 year, International Edition, http://dx.doi.org/10.5772/48095, InTech-Open Access Publisher, Corporate Address University Campus STeP Ri Slavka Krautzeka 83/A 51000 Rijeka, Croatia.
- T.R.Vijayaram, Chief Editor, Advanced Casting Technologies, Chapters: 1-7, pp: 1-126, DOI:10.5772/intechopen.68254, ISBN: 978-1-78923-033-8, Print ISBN: 978-1-78923-032-1, IntechOpen, International Edition, InTech-Open Access Publisher, Corporate Address University Campus STeP Ri Slavka Krautzeka 83/A 51000 Rijeka, Croatia, Europe, Published in London, UK, 2<sup>nd</sup> May 2018.

#### 35.FDP (Virtual) Organized and conducted by the School of Mechanical Engineering, BIST, BIHER, Chennai. October 2021

Serial No.	Name of the FDP (Virtual)	Sponsoring agency	FDP Schedule	My role and responsibilities
1	Recent trends in manufacturing technology and thermal engineering	BIHER, SELAIYUR CHENNAI	6 <sup>th</sup> to 13 <sup>th</sup> OCTOBER 2021	CONVENER and Invited speaker

- 36.Innovative Technological Research and Dedicated, Excellent Educationalist Award: Received by Professor Dr T R Vijayaram, Mechanical Engineering Specialization: 26<sup>th</sup> June 2022 Convocation held at Mohammad Sathak College of Engineering, IT Park, Siruseri, Chennai
- **37.FDP (Virtual) Organized and conducted by the School of Mechanical Engineering, BIST, BIHER, Chennai. October 2021**

Serial No.	Name of the FDP (Virtual)	Sponsoring agency	FDP Schedule	My role and responsibilities
1	Recent trends in manufacturing technology and thermal engineering	BIHER, SELAIYUR CHENNAI	6 <sup>th</sup> to 13 <sup>th</sup> OCTOBER 2021	CONVENER and Invited speaker

### 38.Conferences organized and conducted in the School of Mechanical Engineering, BIST, BIHER, Chennai

Serial No.	Conference name / National / International	Sponsoring agency	Conference date	My role and responsibilities
1	National conference / NCMMAE 2020 / NATIONAL CONFERENCE ON MECHANICAL MECHATRONICS AND AUTOMOBILE ENGINEERING 2020	BIHER, SELAIYUR CHENNAI	2 DAYS / 10 <sup>TH</sup> AND 11 <sup>TH</sup> DECEMBER 2020	Convener and Organizing committee member
2	National E- conference / NCMMAE 2022 / NATIONAL E- CONFERENCE ON MECHANICAL, MECHATRONICS AND AUTOMOBILE ENGINEERING 2022	BIHER, SELAIYUR CHENNAI	2 days/ 25 <sup>th</sup> and 26 <sup>th</sup> May 2022	Organizing committee member

#### **39.FUNDED PROJECTS APPLIED**

Serial No.	Name of the funding agency	Project title	Registration number	Amount	Duration	Principal Investigator / Co Investigator
1	DST AMT	Manufacturing, mechanical testing and characterization of graphene reinforced aluminium- magnesium alloy composite	TPN/72801	INR 3736700	2 YEARS	DR T R Vijayaram, Principal Investigator

2	TNSCST	DEVELOPMENT OF RICE HUSK AND BETEL NUT RUSK REINFORCED EPOXY RESIN MATRIX POLYMER COMPOSITES FOR HOME APPLIANCES	Inovation and product development scheme	INR 99000	1 YEAR	DR T R Vijayaram, Principal Investigator
3	DST SERB	EFFICIENT SYNTHESIS OF BIOETHANOL FROM MICROALGAE IN LARGE SCALE CULTURE CONDITIONS	CRG/2021/0078 99	INR 1704556	3 YEARS	DR T R Vijayaram, Co- Investigator
4	DST AMT	PROCESS PARAMETERS OPTIMIZATION FOR MACHINING HASTELLOY C276	TPN/72971	INR 4152500	2 YEARS	DR T R Vijayaram, Co- Investigator
5	Armament Board	Processing and characterization of amorphous carbon	In collaboration with SSN College of Engineering, Chennai	In collaboratio n with SSN College of Engineering , Chennai	2 Years	DR T R Vijayaram, Co- Investigator

# 40.M Tech Projects supervised by Professor Dr T R Vijayaram

Serial	Name of the student and	Register Number	Project title	Year
No.	M Tech specialization			
1	S NITHISH Machine design	P19MD002	Heat treatment of EN9 Carbon steel by using different quenching media	2019to 2021

41. B.Tech Mechanical Engineering Projects supervised by Professor Dr T R Vijayaram

Serial No.	Name of the students	Register Number	Project title	Year
Batch 1	V Yaswanth K Bhavani Chandra G Yaswanth A S V Sarma	U18ME093 U18ME108 U18ME121 U18ME127	Influence of cutting fluids on surface roughness	May 2022
Batch 2	P Ajay kumar reddy S Yeswanth reddy K Sai G Brahmam	U18ME126 U18ME095 U18ME095 U18ME040	Experimental and Finite element analysis of tensile properties of sterculia foetida fiber reinforced polymer composites	April 2022

# 42. RECENTLY TAUGHT SUBJECTS:UG/PG TAUGHT@BIHER CHENNAI

Serial No.	Subject name	Subject Code	UG /PG Full time / Part time	Semester / Year / Section
1	COMPOSITE MATERIALS AND TECHNOLOGY	U18PEME023	UG / Full time	2020 / 3 <sup>RD</sup> YEAR /Section A
2	Introduction to composite materials	PT180EME05	UG/Part time	2020 / 3 <sup>RD</sup> YEAR /Section A
3	Thermodynamics and combustion	P18PCTE101	PG / Full time / Thermal engineering	2020-2021 / even semester
4	Instrumentation for thermal engineers	P18PETE023	PG / Full time / Thermal engineering	2020-2021 / even semester

5	Materials engineering	U20MECJ01	UG / Full time	2021-2022 / term 3 / 2 <sup>nd</sup> year / Section A
6	Unconventional machining process	U18PEME33	UG / Full time	2022 / term 6 / 3 <sup>rd</sup> year / Section A
7	SOFT SKILL LAB	U18EEEA6L2	UG / Full time	2022 / term 6 / 3 <sup>rd</sup> year / Section A
8	Unconventional machining process	U20MEST32	UG / Full time	2022 / term 4 / 2 <sup>ND</sup> year / Section A
9	METROLOGY AND METALLURGY LAB	PT18PCMEL2	UG / PART TIME	2022 / 2 <sup>nd</sup> year / Section A