

Dr S Santhi

Assistant Professor



Insert your

Education Qualifications: Doctor of Philosophy (Metallurgy)
Specialization: Metal casting, Modeling and Simulation

ADDRESS:

- Department of Metallurgical and Materials Engineering

JNTUH ID:

24150405-131544

EMAIL:

ssanthi_mme@mgit.ac.in

DATE OF JOINING:

37-06-2011

EXPERIENCE – 22 Years

- Teaching - 11
- Research -11

SUMMARY:

- Publications - 18
- Conferences - 10
- Patents – 2
- Books – 1

EVENTS:

- Organized - 8
- Attended - 10

Membership of Professional Bodies:

1. INSTITUTE OF ENGINEERS life membership : M- 1709113
2. INDIAN INSTITUTE OF METALS, life membership number 57086
3. Indian Red Cross Society, life membership number 893
4. ELECTRON MICROSCOPY SOCIETY OF INDIA life membership number LM-1059

Responsibilities Held at Institution Level, Member:

1. CO-CURRICULAR AND EXTRA- CURRICULAR COMMITTEE
2. ATTENDANCE MONITORING COMMITTEE
3. Students welfare committee

Responsibilities Held at Department Level:

1. FOUNDRY LAB INCHARGE
2. CLASS INCHARGE AND CLASS COORDINATOR
3. MAJOR AND MINOR PROJECT INCHARGE FOR 2015,2016, 2019 AND 2021
Member
4. BOARD OF STUDIES
5. NATIONAL BOARD OF ACCREDITATION

Research Guidance:

1. One student is doing MTech (Part time) JNTUH

Honors/Awards Received:

Reviewer for these following International Journals

1. Archives of Civil and Mechanical Engineering
2. Brazilian Society of Mechanical Sciences and Engineering, Springer
3. Progress in Natural Science: Materials International , Elsevier
4. Applied Nanoscience (APNA)
5. Materials Science in Semiconductor Processing , Elsevier
6. International Journal of Ambient Energy
7. Materials Today: Proceedings, Springer

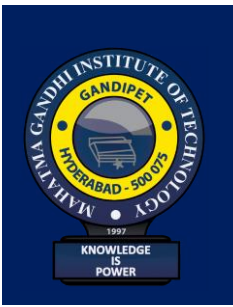
Courses Handled at Under Graduate /Post Graduate Level:

UG: Powder Metallurgy, Foundry Technology, Material Processing, Metallurgy and Material Science, Light Metals and Alloys, Non Destructive Testing

Publications:

International

1. Estimation of Filling Property of Cast Al–Si–Mg Alloy, Springer Journal of Institute of Engineers India Series D
<https://doi.org/10.1007/s40033-022-00391-5>



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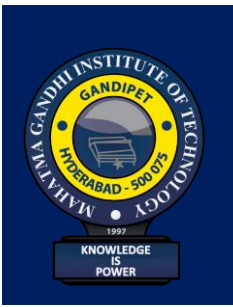
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2. Calculation of Filling Characteristic of Cast Al–Si Alloy, DOI: [10.1007/978-981-16-4222-7_6](https://doi.org/10.1007/978-981-16-4222-7_6), In book: Recent Advances in Manufacturing, Automation, Design and Energy Technologies, Proceedings from ICoFT 2020
3. Detonation Gun Spray Coatings on Martensitic Stainless Steels, doi.org/10.1007/978-981-16-4222-7_10 In book: Recent Advances in Manufacturing, Automation, Design and Energy Technologies, Proceedings from ICoFT 2020
4. Estimation of Mold Filling Ability and Volume Deficit Characteristics of Cast Al–Si Alloys, July 2020, Archives of Foundry Engineering 19(3):55-65, DOI:10.24425/afe.2019.127140, Samavedam Santhi, S Sundarrajan, KS Vadayar
5. Shrinkage Estimation of Cast Al–Si Alloys Through Process Simulation , *Metallofizika i Noveishie Tekhnologii* ('MFINT', i.e. 'Metal Physics and Advanced Technologies') , 39, No. 7: 959–981 (2017), DOI: 10.15407/mfint.39.07.0959. Samavedam Santhi and Srinivasan Sundarrajan
6. Influence of silicon content on volume deficit characteristic of cast Al-Si alloys, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, Journal of Materials Research, IP 202.53.13.146, Volume 28, Issue 24, December 2013, pp 3355-3366, Cambridge University Press
7. Estimation of porosity and shrinkage in a cast eutectic Aluminium-Silicon Alloy, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, Canadian Metallurgical Quarterly, Volume 53, No.1, 2014, 55-64, DOI 10.1179/1879139513Y.0000000097,
8. Estimation of Volume Deficit Characteristic of Cast Al–Si–Mg Alloy, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, Journal of The Institution of Engineers (India): Series D. Volume 94, Number 1, 25-33
9. Quantification of Volume Deficit of Rectangle Shaped Cast Aluminium Alloys, S.Santhi, D.Hanumantha Rao, S.Sundarrajan, Journal of Materials Research and Technology, 36-42, Volume 2, No.1, Source normalised impact factor 1.413
10. Mould filling ability characterisation of Cast aluminium alloys using design of experiments, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, Journal of Metallurgy, Volume 2012 (2012), Article ID 624650, 10 pages, doi:10.1155/2012/624650
11. Al-Si and Al-Si-Mg Cast Alloys Shrinkage Porosity Estimation, S.Santhi, S.Sundarrajan, ARCHIVES of FOUNDRY ENGINEERING Volume 16 , Issue 1/2016, 61-68, Source Normalised impact factor 0.294

National

12. Effect of Process Parameters on Filling Ability of Eutectic Al-Si Alloy, Indian Foundry Journal, Vol 68, No.2 Feb 2022, Indian Institute of Foundry
13. Design of Gating and Riser System for Grate Bar Casting, S. Santhi, B. Ramakrishna Surya, S. Jairam, J. Jhansi and P. K. S. Subramanian, 19-23, Indian Foundry Journal, Vol 61, No.1, January 2015
14. Shrinkage porosity estimation of cylindrical shape cast aluminium alloys, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, 19-24, Indian Foundry Journal, Vol 60, No.3, March 2014
15. Estimation of shrinkage porosity of a cast aluminium alloy, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, I-manager's Journal on Mechanical Engineering, Vol. 2, No. 2, 18-24, February – April'12
16. Influence of bottom chill on volume deficit characteristics of a cast aluminium

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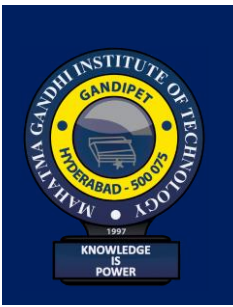
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- alloy, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, 92-96, Foundry, Vol. XXIV, No.2, March/April 2012, Foundry
17. Evaluation of Internal Closed Porosity of Aluminium Alloy Castings Through X-Ray Computer Tomography (XCT), S.Santhi, SB Sakri, MP Subramanian, Sijo N Lukose, D.Hanumantha Rao, C. Muralidhar, S.Sundarrajan, 24-27, Indian Foundry Journal, Vol 57, No.7 July 2011, Indian Institute of Foundry
 18. Characterisation of AA 2219 weldments in T6 condition, Paul M Souza, S. Mohanraj, S. Santhi, I-manager's Journal on Mechanical Engineering, Vol. 2, No. 3,39-43, May- July'12
 19. Studies on Mould Filling Ability of US 413 And US A356 Cast Aluminium Alloys, S.Santhi, SB Sakri, D.Hanumantha Rao, S.Sundarrajan, 28-34, Indian Foundry Journal, Vol 56, No.8 August 2010, Indian Institute of Foundry

Conferences:

1. Mould filling ability characterisation of Cast Al-Si-Mg alloy, ISBN – 9788192705125, International conference on Light weight materials and structures 2K20, March 6-7, 2020
2. J.Jhansi, S.Santhi, PVSL Narayana, Bhomik, Characterization of Wear and Erosion Resistance Coatings on Martensitic Stainless Steel, Research and Developments in Material Processing, Modelling and Characterization 2020" (RDMPMC-20), NIT, Jamshedpur, 26th -27th August 2020
3. S.Santhi, US Jyothi, .Srinivasa Vadayar *CALCULATION OF FILLING CHARACTERISTIC OF CAST Al - Si ALLOY, First International Conference on Future Technologies (ICoFT) in Manufacturing, Automation, Design and Energy (MADE) at NIT Puducherry, December 27-30, 2020*
4. J.Jhansi, S.Santhi, PVSL Narayana, Bhomik, *Detonation Gun Spray Coatings on Martensitic Stainless Steels, First International Conference on Future Technologies (ICoFT) in Manufacturing, Automation, Design and Energy (MADE) at NIT Puducherry, December 27-30, 2020*
5. Study of mould filling ability characteristic of cast Al alloys, National Conference on Advances in Materials Processing and Characterization (NCAMPC - 2016), , 4th to 6th January 2016, NIT Warangal
6. Volume Deficit quantification of cast Al-Si alloys using X ray computer tomography, National Conference on Advances in Materials Processing and Characterization (NCAMPC - 2016), , 4th to 6th January 2016, NIT Warangal
7. V Tejaswini, KL Vedavyas, J. Jhansi, S.Santhi, Erosion resistant coatings on Martensitic stainless steel, 4th International conference on Advances in Steel, Power and construction technology, , November 21-22, 2019, OP Jindal University, Raigar
8. KL Vedavyas, V Tejaswini, J. Jhansi, S.Santhi, Effect of heat treatment on mechanical properties of case carburised steel, 4th International conference on Advances in Steel, Power and construction technology, , November 21-22, 2019, OP Jindal University, Raigar
9. J.Jhansi, S.Santhi, , G.Aiswarya, Effect of heat treatment on mechanical properties of case carburised steels, 3rd National Conference on Recent Advances in Science & Technology (NCRASST 2020) through *online mode* during at ASTU, Guwahati , August 17-19, 2020
10. S.Santhi, K. Karrthikeyan, L.Surya, DESIGN OF GATING AND RISER SYSTEM FOR TRACK LINK CASTING, 3rd National Conference on Recent Advances in Science & Technology (NCRASST 2020) through *online mode* during at ASTU, Guwahati , August 17-19, 2020

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Patents: Published

1. IMPROVING FORMABILITY OF TAILOR WELDED BLANKS BY USE OF SPLINE CURVE AS WELD PROFILE on December 21, 2020 and Provisional Application No. 202041055606
2. QUANTIFICATION OF FILLING ABILITY DISTANCE OBTAINED FROM CASTING SIMULATIONS USING VIRTUAL CASTING SOFTWARE on December 21, 2020 and Provisional Application No. 202041055607

Research & Consultancy:

1. Process Simulation Studies of Flow and Fill Characteristics of Light Alloy Castings for an amount of 2.90 Lakhs, for a period 1 Year, w.e.f. 20.07.2019 sanctioned by TEQUIP – III, JNTUH, Hyderabad

No. of Books/Chapter Published with details:

1. Chapter 9, Performance enhancement approaches for Mahua biodiesel, blend on diesel Engine, U.S. Jyothi, S. Santhi, and J. Jhansi, SUSTAINABLE MANUFACTURING AND DESIGN, Elsevier, Woodhead publishing, British Library Cataloguing-in-Publication Data A catalogue record for this book is available from the British Library , ISBN: 978-0-12-822124-2, ISBN: 978-0-12-822161-7

Events Organized:**Conferences:**

1. One Day National Students' Technical Conference, METALLON 20 on March 12, 2020
2. One Day National Convention on Advances in Metallurgical and Materials Engineering on March 04, 2020

FDPs/STTPs:

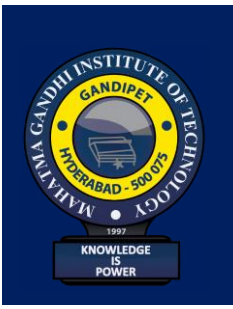
1. Part of the organizing committee for one week online FDP “Functional materials: Processing and applications” by Department of Metallurgical and Materials Engineering, MGIT, Hyderabad, 03.08.2020 to 08.08.2020 in association with IIM, Hyderabad
2. Part of the organizing committee for one week Powder Metallurgy short course from December 19-22, 2012, MGIT, in association with Powder Metallurgy Association of India and ARCI, DMRL, NFC, MIDHANI, Hyderabad and, IIM, Hyderabad

Refresher Courses/ Workshops/ Webinars/ Seminars/ Guest Lecture:

1. National Level online webinar series on Secondary Melting and Processing Technologies, July 23-25, 2020 by MGIT, Hyderabad, in association with IIM, Hyderabad
2. Convener for One day National Seminar on Advances in Metallurgical and Materials Engineering (AMME 2020)
3. Faculty Convener for METALLON student technical fest
4. National Seminar on Perspectives in Materials and Manufacturing Technologies April 7, 2017 organized by MME, MGIT

Events Attended:**FDPs/STTPs:**

1. Journey of self discovery, FDP,Hare Krishna Golden Temple, 9 days ,



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18.07.2021 to 26.07.2020

2. Advanced concepts for developing MOOCS, FDP, Teaching Learning Centre Ramanujan College (UNIVERSITY OF DELHI), 2 Weeks 02.07.2020 to 17.07.2020
3. Application of Optimization Techniques in Mechanical Engineering AOTMER, organized by Vitaraka Projects, August 7-11, 2020

Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:

1. Intellectual property rights and patenting, 08.04.2020, Start Core technologies
2. OBE & NBA ACCREDITATION , 22nd APRIL 2020 , Start Core technologies
3. Developing thinking abilities relevant for engineering education, 28.04.2020, Team Face prep
4. Casting Defects and Remedies Online Training Program , 06.05.2020, MSME TDC (PPDC), Agra
5. Research thrust areas in composites, 20.05.2020, Arasu Engineering college, Kumbakonam
6. Recent advances in material science and nano technology, June 4 to 6, 2020, Bannari Amman Institute of Technology, Satyamangalam

Online Certifications: Coursera

1. Ferrous Technology –I and II
2. Material Behaviour course
3. Materials Science: 10 Things Every Engineer Should Know
4. Aerospace Materials
5. Material Processing
6. AI Materials