

## Shantanu Debnath

SRKR Engineering College, Chinaamiram

Department of Mechanical Engineering

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### Experience:

Post	Institute	Tenure	Key responsibilities	Subject Expertise
Assistant Professor	SRKR Engineering College	Nov 2020 – till now	<ul style="list-style-type: none"><li>Teaching</li></ul>	Industrial Robotics, Mechatronics
Assistant Professor	ISB&M School of Technology, Pune.	1 year 5 months	<ul style="list-style-type: none"><li>Research and Innovation Cell</li><li>Teaching</li><li>Active member in NAAC committee</li></ul>	Material Science, Engineering metallurgy.

### Educational qualification:

Examination	Subjects/Specialization	Board/Institute	Year	%/CGPI
Ph.D	Production Engineering (Manufacturing Technology)	NIT Agartala	2020	7.55
M.Tech	Metallurgy and Materials Engineering	NIT Durgapur	2013	8.01
B.Tech	Production Engineering	NIT Agartala	2011	64.40
H.S(+2)	Science	B.J.H.S	2006	56.00
Madhayamik	All Subjects	S.N.H.S	2004	67.25

### Projects/Research details:

- Ph.D. Description:** Studies on microstructure, mechanical properties and machinabilities of directional solidified ex-situ Al-4.5Cu-SiC composites.  
**Highlights:** Stir casting, SEM, EDX, XRD and TEM analysis.
- M.tech Project:** Effect of Plasma Sprayed Cr<sub>3</sub> C<sub>2</sub>-NiCr Coating on High-Temperature Corrosion behaviour of 2.25Cr-1Mo Steel in Dry air.  
**Highlights:** Plasma coated, SEM & EDX analysis
- B.tech project:** Design Development of Blanking Tool and Its Analysis Using Ansys 10
- Vocational training:** Effect of Section Modulus in Plate bending

**B.E project supervision:** Development of Al-B<sub>4</sub>C composite by Stir casting techniques.

### Honors:

- **Reviewer** of Journal of the Brazilian Society of Mechanical Sciences and Engineering, Brazil.
- **Reviewer** of Proceedings of the Institution of Mechanical Engineers. Part I: Journal of Systems and Control Engineering, United Kingdom

#### **Publications:**

1. **S Debnath**, G R K Sastry, R N Rai, “Multi-objective decision making optimization for electro discharge machining process of Al-4.5Cu-SiC composite using Fuzzy-Topsis”, Vol. 78, pp 86-90, Journal of Scientific and Industrial Research, **SCI**.
2. A.Dey, **S. Debnath**, K.M.Pandey, “Optimization of electrical discharge machining process parameters for Al6061/carbon composite using grey-based hybrid approach”, Transactions of Nonferrous Metals Society of China, 27(5), pp-998-1010, 2017 - Journal – Elsevier, **SCI**.
3. **S Debnath**, R N Rai, G R K Sastry, “A study of multiple regression analysis on die sinking EDM machining of Ex-situ developed Al-4.5Cu-SiC composite”, Materials Today: Proceedings:, Vol. 5/2P1 , pp-5195-5201, 2018, **Scopus**.
4. **S Debnath**, V Swami, R N Rai “Microstructures and Mechanical Properties Studies of the Directional Solidified Developed Ex-Situ Al-4.5% Cu-SiCp Metal-Matrix Composites”, Journal of Engineering and Applied Sciences, 2018, Vol. 13(3SI) Page No.: 3273-3277, **Scopus**.
5. A. Pawar, P. Vanga, V. Naidu, M. Shah, **S. Debnath** “Development of Ex-situ Al/B4C MMC by Stir Casting Technique” , Journal of Emerging Technologies and Innovative Research, April 2019, Volume 6, Issue 4, **UGC Approved**.

#### **Conferences attended (national/international):**

1. **S Debnath**, R N Rai, G R K Sastry, ” Studies of microstructure and mechanical properties of ex-situ developed Al-4.5%Cu-SiC<sub>p</sub> composite prepared by stir casting technique”, HCMCP 2016.
2. **Shantanu Debnath**, Vikash Swami, G.Ravi Kiran Sastry, Ram Naresh Rai, ” Studies of grey relation analysis with fuzzy approach for optimization of design process parameter for edm on al-4.5cu-sic<sub>p</sub> using taguchi method”, ICAMT 2016, Dadi Institute of Engineering & Technology, Visakhapatnam, Andhra Pradesh.
3. **Shantanu Debnath**, Vikash Swami, Ram Naresh Rai, “Microstructures and mechanical properties studies of the directional solidified developed ex-situ Al-4.5%Cu-SiC<sub>p</sub> metal-matrix composites”, International Conference on Innovative Research in Engineering and Science (IRES 2017), Asian Institute of Technology Conference Center, Thailand, June 16-17, 2017.
4. **S. Debnath**, G R K Sastry, R N Rai ,”Studies of dendritic arm growth during T6 heat-treatment on directionally solidified Al-4.5Cu-SiC composite”, National Conference on Advanced Materials, Manufacturing and Metrology (NCAMMM – 2018), CMERI Durgapur.

#### **Workshop/trainings attended:**

- One week short-term training program on “**Advanced Engineering Optimization through Intelligent technique**”, organised by Department of Mechanical engineering, SVNIT, Surat (2016).
- Certificate course on “**Material Characterization**” at IIT Madras, Chennai(2015)
- Vocational training in VISAKHAPATNAM STEEL PLANT (RINL) (2010).
- Training Course on ANSYS 10 and Project on Hand Mould at I.D.T.R (2009)

**Technical skills:**

- Hand on experience of Scanning Electron Microscope (SEM) with electro dispersive spectroscopy (EDX) at IIT Madras.
- Matlab, GEPsoft GeneXpro tools, Autocad, Microsoft Word

**Certified course:**

- Udemy 30 days online course on “Become a good Matlab programmer.”
- NPTEL 12 week’s (Jan-Apr 2017) online course on “**Material Characterization.**”
- NPTEL 12 week’s (Jan-Apr 2018) online course on” **Introduction to Material Science and Engineering**”.
- NPTEL 4 week’s (Aug-Sep 2018) online course on “**Elementary Stereology for Quantitative Metallography**”.

**Achievements:**

- Bagged best paper award in **Research scholar day 2018** at NIT Agartala
- Volunteer in **N.S.S.**

**Professional bodies membership:**

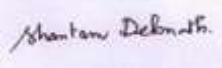
- Institute of Engineers India (IEI)

**Personal vitae:**

Marital status : Single  
 Date of birth : 30-03-1988  
 Languages known : Bengali, Hindi & English  
 Strength : Positive Attitude, Effective Presentation, Complex problem solving.

**Declaration:** I hereby declare that the facts mentioned above and information are true to the best of my knowledge. I will be responsible for any discrepancy found in them.

Place: Pune



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