Curriculum Vitae

Suhrit Mula, PhD

Associate Professor,
Department of Metallurgical and Materials Engineering,
Indian Institute of Technology (IIT) at Rookee, INDIA
Email: suhritmula@gmail.com, smulafmt@iitr.ernet.in

Email: smulafmt@iitr.ernet.in,
suhritmula@gmail.com,
Phone: 91-1332-28-5763 (O)
Mob : 91-7579048755 ; 91-8938904258

Permanent Address
Vill-Beraberia, P.O.-Baradongal, P.S.-Arambagh, Dist.–Hooghly, West Bangal, Pin-712617, India

Education:

- **Ph.D.**, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur, India.
  PhD Thesis: Aluminium based nanocomposites developed by mechanical alloying and non-contact ultrasonic casting.
- **M. Tech.** (Metallurgy), Department of Metallurgical and Materials Engineering, National Institute of Technology, Durgapur, India.
  M. Tech. Thesis: Study on synthesis of Al / $(ZrSi04)_p$ composites through investment casting process and p/m route.
- **B.E.** (Metallurgy), Regional Engineering College, Durgapur, India
  B.E Thesis: Study on the aging behavior of vanadium micro-alloyed dual phase heat-treated steel.

S.No.	Degree	University	Year	Subjects	Percentage
1.	Matriculation	W.B.B.S.E.	1991	General	83.9
2.	H.S.(10+2)	W.B.C.H.S.E.	1993	Science	78.1
3.	B.E.	R.E. College, Durgapur,	1997	Metallurgical Engineering	78.3
4.	M.Tech.	NIT, Durgapur	2003-2004	Metallurgical Engineering	83.1
5.	Ph.D.	IIT, Kharagpur	2009	Nanostructured materials	-

Current Research:

- Synthesis and mechanical properties of mechanically alloyed copper-based nanocomposites for high strength and electrical applications.
- Stabilization of nanostructured Aluminium alloys developed by mechanical alloying
- Mechanical properties of ultrafine-grained bulk-size copper based alloys prepared by cryorolling.
- Stabilization of ultrafine grained steel developed by mechanical alloying for nuclear applications.

Research Interest:

- Nanostructured materials, amorphous alloys and nanocomposites
- Mechanical properties
- Mechanical alloying
- Cryorolling

Personal Data:

- Sex: Male
- Date of birth: 16.01.1975.
- Marital status: Married,
- Caste: General

Work Experience:

- **Assistant Professor at Indian Institute of Technology Roorkee, 10th December, 2012 – Continue.**
- **Post-Doctoral Research** from 22nd July,2010 – for 12 months;
  At **NC State University** with Eminent Prof. Carl C. Koch, (ON BOYSCAST FELLOWSHIP, DST, GOVT. OF INDIA), Department of Materials Science & Engineering, North Carolina State University, Raleigh 27606, USA.
- **Assistant Professor** at National Institute of Technology, Rourkela **-28th March' 2007 – 07th December, 2012**.
- **Teaching Assistant** at National Institute of Technology, Rourkela 21st Nov'2003 --31st December'2004
- **Research Scholar**-31stJuly98-30th July'2003; at CMERI, Durgapur: Nature of work: Project Execution.
- **Management Trainee**-July 1997 – July-98; at India Foils Ltd., Kolkata: Nature of work: Production.

Sponsored Research Projects:

1. **Ongoing**, LCF of cast 625 superalloy for turbine casing and forged 617 superalloy for rotor applications. Sponsored by IGCAR, Kalpakkam, Cost 194 lacs. Ongoing. (with Dr. Ujjwal Prakash)

2. **Completed**, Mechanical and thermoelectrical properties of copper-based nanocomposites developed by mechanical milling. CSIR-New Delhi, Cost ~Rs.22.0 lakhs (approx.). Completed, 30th Sep, 2014. Project No. CSR-701-MMD.

3. **Completed**, Nanostructured grains stabilization of Al-alloys for ultra-light weight applications prepared by mechanical alloying. IIT Roorkee, Rs.10.0 lakhs. Completed, July, 2016. Project No. No. IITR/SRIC/218/FIG, Dated: May 27, 2013.

4. **Under consideration**, "Fatigue and corrosion properties of ultrafine grained Al5083-SiC_p nanocomposites developed by stir-casting + SPD processing for naval applications" to CSIR, New Delhi, Rs. **29.46 lacs. (approx.)**

Sponsored Consultancy Projects

1. Improvement in production of cast EN36C(S) alloy steel free from porosity and banded microstructure. Sponsored by M/S Mahindra Sanyo Special Steel Pvt. Ltd. Khopoli, Maharashtra. Consultancy Project Cost: Rs.1256250/-, Duration: 09-01-2014 to 31/08/2015. Project No. MMD-6003/2014-2015. With Dr. PK Ghosh (PI), Dr. Devendra Singh (Co-PI) & Dr. Suhrit Mula (Co-PI).
2. Testing of JB-RE-BAR COUPLERs, sponsored by JB Engineering & RE-Bar Couplers India P Limited, Siliguri - Bengal - 734010-INDIA, HO:10 A & B, 23,Industrial Area, Nangal Jarialan, Distt. Una , Himachal Pradesh–177212 INDIA. Approx. cost: 15 lacs. **In principle approved and waiting for final approval from SRIC, IITR.**

Organized Short-term course:

1. **AICTE sponsored Short Term Course on '**Excellence in marine materials: advanced processing, characterization & applications**' from 21st May-25th May, 2018.**
2. **AICTE sponsored Short Term Course on '**Advanced Aerospace Materials: Processing, Characterization and Applications**' from 1st June-5th June, 2015.**

Invited Talks delivered:

- Delivered an invited talk on 'Advanced processing techniques to obtain high strength materials' at Shivalik College of Engineering (SCE), Dehradun on 30th March, 2018.
- Delivered an invited talk on 'Fracture mechanism, fracture toughness and fatigue properties of low SFE copper alloys processed by severe plastic deformation' at MSME, IIT Hyderabad on 12.10.2017.
- Delivered an invited talk on 'XRD and its Broad applications in Materials Characterization' in a TEQIP sponsored Workshop 'Materials Characterization by SEM, TEM, XRD & EBSD', 27-28 October, 2017, at Department of Mechanical Engineering Govind Ballabh Pant Institute of Engineering & Technology, Ghurdauri, Pauri-Garhwal-246194, UK.

Awards and Achievement:

- **BOYSCAST FELLOWSHIP** (Dept. of Science & Technology, Govt. of India), North Carolina State University, Raleigh, USA (Supervisor: Prof. Carl C. Koch), (July 22, 2010-19th July, 2011) [One Year] (Selected as BOYSCAST Fellow (2009-2010)
- **Evaluated 2 PhD theses from NIT Rourkela and NIFFT, Ranchi.**
- **National Scholarship Award** by Dept. of Higher Education, Govt. of West Bengal, from 1991-1993 and 1993-1997.
- **56th** rank in Madhyamik (Secondary Exam.), W.B.B.S.E.
- **5th** rank in B.E. out of 38 students.

Post Graduate Thesis Supervision

(a) Doctoral Theses Supervision:

Sl. No.	Name of Student	Title of Thesis	Doctorate/ Master's	Completion year
		PhD		
1	Dasharath Mabrukar	Mechanical properties of UFG low SFE Cu-Zn & Cu-Al alloys processed by cryo-rolling/forging	**Doctorate**	**Awarded (March 10, 2017)**
2	Sumit Ghosh	Thermomechanical simulation kinetics to develop high strength IF and microalloyed steels	**Doctorate**	**Awarded (18th May, 2018)**
3	VMS Muthaiah	Thermal stability and mechanical properties of nanocrystalline Fe-Cr-X(Nb,Zr,Y) alloys prepared by mechanical alloying + spark plasma sintering	Doctorate	submitted 10th Oct,18
4	Atul Kumar with Dr. K. Pal (MIED)	Mechanical properties and corrosion resistance of Al7075 alloy based nanocomposites produced by stir casting followed by SPD.	Doctorate	Expected to submit by Jan,19
5	Godasu Aswin Kumar with Dr. U. Prakash	Fatigue and fracture properties of nanosize particulate reinforced Al alloy nanocomposites	Doctorate	On-going (2nd year)
6	Lekhraj Verma with Dr. V. Dhabhade (MMED)	Fe-based alloys by powder forging	Doctorate	On-going (1st year)
7	Pravendra	Thermomechanical processing of Ti-based alloys	Doctorate	On-going

	Pratap Singh with Dr. Sadhan Ghosh			(1st year)

(b) Masters Theses Supervision:

Sl. No.	Name of Student	Title of Thesis	Doctorate/ Master's	Completion year
1	Sangita Pattanaik	Synthesis of Al-Zn and Al-Zn-Si nanostructures by mechanical alloying	Master's	2008
2	PS Mohakud	Structures and properties of Al-based Al-Si-Ni nanostructures developed by mechanical alloying	Master's	2009
3	Pankajini Sahani	Synthesis and characterization of copper-based nanostructures developed by mechanical milling	Master's	2010
4	Ravi Kumar	Mechanical properties of ultrafine grains bulk copper alloy developed by cryorolling	Master's	2014
5	B. Chauhan	Mechanically alloyed copper based nanostructures for high strength and electrical contact applications	Master's	2014
6	Sooraj S	Stabilization of ultrafine grain steels developed by mechanical alloying for nuclear application	Master's	2014
7	Amit K Singh	Microstructure and mechanical properties of age hardenable al -alloy processed by cryodeformation	Master's	2015
8	Ajay K. Singh	Enhancement of mechanical properties of ultra low carbon microalloyed steel by thermomechanical processing	Master's	2015
9	Hari Bau L	Thermal stabilization of nanocrystalline Fe-Cr alloys developed by mechanical alloying	Master's	2015
10	Prem Kumar Asok Kumar	Aluminum based nanostructured materials prepared by mechanical alloying	Master's	2016
11	Kumar Saurabh	Preparation and characterization of Al-SiC_p nanocomposites developed by stir casting	Master's	2016
12	Chayan Sengar	Mechanical properties of Al-based nanocomposites developed by stir casting followed by cryoforging	Master's	2017
13	Lekhraj Verma	Mechanical properties and corrosion resistance of friction stir processed LFE Cu-based alloys	Master's	2017
14	Arpan Arora	Mechanical properties and corrosion resistance of mechanically alloyed Fe-based nanostructures consolidated by spark plasma sintering	Master's	2017
15	Moses JP	Microstructures and mechanical properties of spark plasma sintered ferritic steels	Master's	2018
16	Swetank	Effect of cyclic heat treatment and thermomechanical processing on microstructure and mechanical properties of microalloyed steels	Master's	On-going

Students' feedback (last 5 semesters)

Sl. No.	Couse Name	Feedback for Teacher (out of 5)	No. of students
1	**Phase Transformation**	**4.812**	**15**
2	**Materials Characterization**	**3.905**	**101**
3	**Phase Transformation**	**4.39**	**35**
4	**Characterization of Materials**	**4.337**	**40**
5	**Heat Treatment Practices**	**4.174**	**94**

Publications:

(a) Book Chapter/Book published

1. S. M. Dasharath, **Suhrit Mula**. Microstructures, Mechanical Properties and Strengthening Mechanisms of cast Cu–Al Alloys Processed by Cryorolling in Recent Trends in Materials and Devices pp. 479-482, volume 178 (2016). Part of the **Springer Proceedings in Physics book series** (SPPHY).
2. **Suhrit Mula**, S. K. Pabi, Sudipto Ghosh. Aluminium based nanocomposites: Metal Matrix Nanocomposites, pp.1-184, LAP LAMBERT Academic Publishing (11 November 2011). **ISBN-10:** 3846542172, **ISBN-13:** 978-3846542170.

(b) Details of Research Publications in Journals (42)

Sl No	Authors	Title	Name of Journal	Page	Vol	Year
44	V.M.S. Muthaiah, S. Mula	Evolution of microstructures and mechanical properties of spark plasma sintered Fe-Cr-Nb alloys	Materials Science and Engineering: A	367-376	739	2019
43	A. Kumar, A. K. Godasu, K. Pal, **S. Mula**	Effects of in-process cryocooling on metallurgical and mechanical properties of friction stir processed Al7075 alloy	Materials Characterization	440-447	144	2018
42	V.M.S. Muthaiah, C.C. Koch, S. Mula	Effect of Nb addition on Fe-7Cr-Nb and Fe-15Cr-Nb metastable alloy formation and their thermal stability	Mater. Res. Express (2018)	056534	5	2018
41	S. Ghosh, SM Dasharath, **S. Mula**	Simulation kinetics of austenitic Phase transformation in Ti+Nb stabilized IF and microalloyed steels	Journal of materials engineering & performance, ASM International	2595–2608	27	2018
40	V.M.S. Muthaiah, **S. Mula**.	Influence of Cr and Y addition on microstructure, mechanical properties and corrosion resistance of SPSed Fe-based alloys	Metallurgical and Materials Transactions A	990–1005	49	2018
39	A. Kumar, K. Pal, **S. Mula**	Simultaneous improvement of mechanical strength, ductility and corrosion resistance of stir cast Al7075-2%SiC micro- and nanocomposites by friction stir processing	Journal of Manufacturing Processes	1-13	30	Dec, 2017
38	A. Prem Kumar, V.M.S. Muthaiah, **S. Mula**	Effect of Nb, Y and Zr on thermal stability of nanocrystalline Al-4.5wt.% Cu alloy prepared by mechanical alloying.	Journal of Alloys and Compounds	617-627	722	Oct, 2017
37	S. Ghosh, **S. Mula**, D.K. Mondal	Development of ultrahigh strength cast-grade microalloyed steel by simple innovative heat treatment techniques for industrial applications.	Materials Science and Engineering: A	667-680	700	July, 2017
36	Debasis Nayak, Shiba Narayan Sahu, **S. Mula**.	Metallurgical approach towards explaining optimized EDM process parameters for better surface integrity of AISI D2 tool steel.	Transactions of the Indian Institute of Metals	1183-1191	70	July 2017
35	SM Dasharath, S. Ghosh, **S. Mula**	Effect of SFE on tensile and fatigue behavior of ultrafine grained Cu-Zn and Cu-Al alloys developed by cryo-rolling/forging.	Materials Science and Engineering: A,	73-83	693	May, 2017

34	SM Dasharath, **S. Mula**	Improvement of mechanical properties and fracture toughness of low SFE Cu-Al alloy through microstructural modification by multiaxial cryoforging.	Materials Science and Engineering: A	393-404	690	2017
33	A. Kumar, S.K. Sharma, K. Pal, **S. Mula**	Effect of Process Parameters on Microstructural Evolution, Mechanical Properties and Corrosion Behavior of Friction Stir Processed Al 7075 Alloy.	Journal of Materials Engineering and Performance	1122–1134	26	2017
32	S. Ghosh, A.K. Singh, **S. Mula**, P. Chanda, V.V. Mahashabde, T.K. Roy	Mechanical properties, formability and corrosion resistance of thermomechanically controlled processed Ti-Nb stabilized IF steel.	Materials Science and Engineering: A	22–36	684	2017
Sl. No.	Authors	Title	Name of Journal	Page	Vol	Year
31	SM Dasharath, **S. Mula**	Mechanical properties and fracture mechanisms of ultrafine grained Cu-9.6% Zn alloy processed by multiaxial cryoforging.	Materials Science and Engineering: A	403-414	675	2016
30	Sooraj S, V.M. Suntharavel Muthaiah, P.C. Kang, C.C. Koch, **S. Mula**.	Microstructural evolution and thermal stability of Fe-Zr metastable alloys developed by mechanical alloying followed by annealing.	Philosophical Magazine	2649-2670	96	2016
29	V.M.S. Muthaiah, **S. Mula**.	Effect of zirconium on thermal stability of nanocrystalline aluminium alloy prepared by mechanical alloying.	Journal of Alloys and Compounds	571-580	688	2016
28	Sumit Ghosh, Ajay Kumar Singh, **S. Mula**.	Effect of critical temperatures on microstructures and mechanical properties of Nb–Ti stabilized IF steel processed by multiaxial forging.	Materials & Design	47-57	100	2016
27	SM Dasharath, **S.Mula**.	Microstructural evolution and mechanical properties of low SFE Cu-Al alloys processed by cryorolling followed by short-annealing.	Materials & Design	552-564	99	2016
26	V.M.S. Muthaiah, Hari Babu L, Carl C Koch, **S. Mula**.	Feasibility of formation of nanocrystalline Fe-Cr-Y alloys: Mechanical properties and thermal stability.	Materials Characterization	43-53	114	2016
25	A.K. Singh, S. Ghosh, **S. Mula**.	Simultaneous improvement of strength, ductility and corrosion resistance of Al2024 alloy processed by cryoforging followed by ageing.	Materials Science and Engineering: A	774-785	651	2016
24	SM Dasharath, C.C. Koch, **S. Mula**.	Effect of stacking fault energy on mechanical properties and strengthening mechanisms of brasses processed by cryorolling.	Materials Characterization	14-24	110	2015
23	S. Ghosh, **S. Mula**.	Thermomechanical processing of low carbon Nb–Ti stabilized microalloyed	Materials Science and Engineering: A	218-233	646	2015

		steel: Microstructure and mechanical properties.				
22	**S. Mula**, Daria Setman, K.M. Youssef, R.O. Scattergood, CC Koch.	Structural evolution of $Cu_{(1-X)}Y_X$ alloys prepared by mechanical alloying: Their thermal stability and mechanical properties.	Journal of Alloys and Compounds	108-116	627	2015
21	Ravi Kumar, S.M. Dasharath, P.C. Kang, C.C. Koch, **S. Mula**.	Enhancement of mechanical properties of low stacking fault energy brass processed by cryorolling followed by short-annealing.	Materials & Design	637-643	67	2015
20	Bingqing Li, Pengchao Kang, Huasong Gou, Gaohui Wu, **S. Mula**.	Surface morphology evolution and ablation mechanism of SiC-Si multiphase ceramic coating on graphite under oxy-acetylene flame.	Corrosion Science	473-480	88	2014
Sl No	Authors	Title	Name of Journal	Page	Vol	Year
19	Kang Pengchao, Zhang Bin, Wu Gaohui, Gou Huasong,Chen Guoqin, Jiang Longtao, **S. Mula**.	Synthesis of β-SiC Nanowires by ball milled nanoparticles of Si and C.	Journal of Alloys and Compounds	304-308	604	2014
18	**S. Mula**, J. Panigrahi, P.C. Kang, Carl C. Koch.	Effect of microwave sintering over vacuum and conventional sintering of Cu based nanocomposites.	Journal of Alloys and Compounds	710-715	588	2014
17	Mark A. Atwater, **S. Mula**, R.O. Scattergood, C.C. Koch.	Thermal stability of nanocrystalline copper alloyed with antimony.	Metallurgical and Materials Transactions A	5611-5616	44	2013
16	**S. Mula**, S.K. Pabi, C.C. Koch, P. Padhi, S. Ghosh.	Workability and mechanical properties of ultrasonically cast Al-Al_2O_3 nanocomposites.	Materials Science and Engineering: A	485-491	558	2012
15	S. Mal, S. Nori, **S. Mula**, J. Narayan, J. T. Prater.	Defect mediated reversible ferromagnetism in Co and Mn doped zinc oxide epitaxial films.	Journal of Applied Physics		**112**	2012
14	**S. Mula**, S. Ghosh, S. K. Pabi.	Microstructural development and room-temperature thermal stability of mechanically alloyed $Al_{87}Y_{10}Ni_3$ nanostructure.	Advanced Science Letters	362-367	16	2012
13	**S.Mula**, H. Bahmanpour, S. Mal, P C Kang, M. Atwater, W. Jian, R.O. Scattergood, C.C. Koch.	Thermodynamic feasibility of solid solubility extension of Nb in Cu and their thermal stability.	Materials Science and Engineering: A	330-336	539	2012
12	**S. Mula**, P. Sahani, S.K. Pratihar, S. Mal, C.C. Koch.	Mechanical properties and electrical conductivity of Cu–Cr and Cu–Cr–4% SiC nanocomposites for thermo-electric applications.	Materials Science and Engineering: A	4348-4356	528	2011
11	P. Sahani, **S. Mula**, P.K. Roy, P.C. Kang, C.C.	Structural investigation of vacuum sintered Cu–Cr and Cu–Cr–4% SiC nanocomposites prepared by	Materials Science and Engineering: A	7781-7789	528	2011

	Koch.	mechanical alloying.				
10	H. Bahmanpour, A. Kauffmann, M.S. Khoshkhoo, K.M. Youssef, **S. Mula**, J. Freudenberger, J. Eckert, R.O. Scattergood, C.C. Koch.	Effect of stacking fault energy on deformation behavior of cryo-rolled copper and copper alloys.	Materials Science and Engineering: A	230-236	529	2011
9	P.C. Kang, G.Q. Chen, B. Zhang, G.H. Wu, **S. Mula**, C.C. Koch.	Oxidation protection of carbon fibers by a reaction sintered nanostructured SiC coating.	Surface Coatings and Technology	305-311	206	2011
Sl No	Authors	Title	Name of Journal	Page	Vol	Year
8	**S. Mula**, K. Mondal, S. Ghosh and S. K. Pabi.	Structure and mechanical properties of Al-Ni-Ti amorphous powder consolidated by pressure-less, pressure-assisted and spark plasma sintering.	Materials Science and Engineering: A	3757-3763	527	2010
7	**S. Mula**, S. Ghosh and S. K. Pabi.	On the formation of phases by mechanical alloying and their thermal stability in Al-Mn-Ce system.	Powder Technology	176-181	191	2009
6	**S. Mula,** P. Padhi, S. C. Panigrahi, S. K. Pabi and S. Ghosh.	On Structure and Mechanical Properties of Ultrasonically Cast Al-2% Al_2O_3 Nanocomposite.	Materials Research Bulletin,	1154-1160	44	2009
5	**S. Mula**, S. Ghosh, S. K. Pabi.	Synthesis of Al-based Al-Cr-Co-Ce alloy by mechanical alloying.	Materials Science and Engineering A	208-213	472	2008
4	P.K. Ray, **S. Mula**, U.K. Mohanty, B. C. Ray.	Effect of hygrothermal shock waves on interlaminar shear strength of hybrid composites.	Journal of Reinforced Plastics and Composites	519-524	26	2007
3	T. Bera, **S. Mula,** P. K. Ray, B. C. Ray.	Effects of Thermal Shocks and Thermal Spikes on Hygrothermal Behavior of Glass–Polyester Composites.	Journal of Reinforced Plastics and Composites	725-738	26	2007
2	**S. Mula**, T. Bera, P. K. Ray, B. C. Ray	Effect of Hydrothermal ageing on mechanical behaviour of sub-zero weathered GFRP composites.	Journal of Reinforced Plastics and Composites	673 - 680	25	2006
1	B.C. Ray, **S. Mula,** T. Bera, P. K. Ray	Prior Thermal Spikes and Thermal Shocks on Mechanical Behavior of Glass Fiber-Epoxy Composites.	Journal of Reinforced Plastics and Composites	197-213	25	2006

Communicated In Journals:

5 more papers communicated to Journals

Details of Research Publications presented in Conferences (43)

1. **Suhrit Mula**, Sumit Ghosh**.** Innovative design of new thermomechanical processing routes to obtain ultrafine grained steels. **MS & IA 2018, Warsaw, Poland. 26-29th June, 2018.**
2. Sumit Ghosh, **Suhrit Mula**. Superior mechanical properties of nano-grained Nb–Ti stabilized IF and low C microalloyed steels processed by critical phase control multiaxial forging at Large

equivalent Strain. International conference on Nanotechnology: Ideas, Innovations & Initiatives (ICN:3I-2017), Organized by Centre of Nanotechnology and Department of Mechanical & Industrial Engineering, Indian Institute of Technology Roorkee, India, on **6-8th Dec, 2017**.

3. Atul kumar, Kaushik Pal, **Suhrit Mula**. Characterization of microstructural evolution and mechanical properties of cryorolled Al7075-SiC nanocomposites. Presented at International Conference on Nanotechnology: Ideas, Innovations and Initiatives (ICN:3I-2017), Indian Institute of Technology Roorkee, Uttarakhand, India, 06-08 December 2017.
4. Arpan Arora, B.V. Manoj Kumar, **Suhrit Mula.** Characterization of Spark plasma sintered Fe-Ni-Y_2O_3 based alloys. International Conference on Advances in Materials & Processing: Challenges & Opportunities (AMPCO 2017), Organized by Department of Metallurgical and Materials Engineering, Indian Institute of Technology Roorkee, India, on 30th Nov-2nd Dec, 2017.
5. Moses JP, VM Suntharavel Muthaiah, **Suhrit Mula**. Influence of Zr, Nb and V on mechanical properties of MA957 ferritic steel consolidated by spark plasma sintering. International Conference on Advances in Materials & Processing: Challenges & Opportunities (AMPCO 2017), Organized by Department of Metallurgical and Materials Engineering, Indian Institute of Technology Roorkee, India, on 30th Nov-2nd Dec, 2017.
6. Atul Kumar, Ashwin Kumar, Kaushik Pal, **Suhrit Mula.** Effects of active-cooling on metallurgical and mechanical properties during friction stir processing of Al 7075 alloy. International Conference on Advances in Materials & Processing: Challenges & Opportunities (AMPCO 2017), Organized by Department of Metallurgical and Materials Engineering, Indian Institute of Technology Roorkee, India, on 30th Nov-2nd Dec, 2017.
7. Sumit Ghosh, **Suhrit Mula**. Improvement of fracture toughness and fatigue strength of Nb–Ti stabilized low C microalloyed steel through microstructural modification by innovative thermo-mechanical control processing. International Conference on Advances in Materials & Processing: Challenges & Opportunities (AMPCO 2017), Organized by Department of Metallurgical and Materials Engineering, Indian Institute of Technology Roorkee, India, on 30th Nov-2nd Dec, 2017.
8. Dasharath Mabrukar, **Suhrit Mula**. Fracture mechanisms of ultrafine grained low SFE Cu-9.6% Zn alloy processed by multiaxial cryoforging. NMD ATM 2017, BITS Pilani, KK Birla Goa Campus, 55th National Metallurgist day & 71st Annual technical meeting, 11-14 Nov, 2017.
9. V.M. Suntharavel Muthaiah, **Suhrit Mula.** Spark plasma sintered Fe-Cr-Nb alloys for nuclear applications. NMD ATM 2017, BITS Pilani, KK Birla Goa Campus, 55th National Metallurgist day & 71st Annual technical meeting, 11-14 Nov, 2017.
10. Moses JP, Arpan Arora, V.M. Suntharavel Muthaiah, **Suhrit Mula,** B.V. Manoj Kumar. Microstructure and mechanical properties of nano-Y2O3 dispersed Fe-Ni alloys synthesized by mechanical alloying followed by spark plasma sintering. NMD ATM 2017, BITS Pilani, KK Birla Goa Campus, 55th National Metallurgist day & 71st Annual technical meeting, 11-14 Nov, 2017.
11. Atul Kumar, K. Pal, **Suhrit Mula.** Development of ultrafine-grained Al7075-SiC nanocomposite by stir casting followed by cryorolling. NMD ATM 2017, BITS Pilani, KK Birla Goa Campus, 55th National Metallurgist day & 71st Annual technical meeting, 11-14 Nov, 2017.
12. V.M. Suntharavel Muthaiah, **Suhrit Mula**. Thermal stability and mechanical properties of spark plasma sintered Fe-Cr-Y alloys prepared by mechanical alloying. ICAMMP-iv, Indian Institute of Technology Kharagpur, India, November 5-7, 2016.

13. V.M. Suntharavel Muthaiah, **Suhrit Mula**. Effect of Nb addition on structure and thermal stability of nanocrystalline Fe-Cr alloys developed by mechanical alloying. ICAMMP-iv, Indian Institute of Technology Kharagpur, India, November 5-7, 2016.
14. Atul Kumar, Kaushik Pal, **Suhrit Mula**. Effect of friction stir processing on microstructure and mechanical properties of a stir cast Al 7075-2 wt.% SiC micro and nanocomposite**.** ICAMMP-iv, Indian Institute of Technology Kharagpur, India, November 5-7, 2016
15. Sumit Ghosh, **Suhrit Mula**. "Effect of microstructure and mechanical properties of IF steel processed by thermomechanical controlled rolling". NMD ATM 2015, Le Meridian, Coimbatore. 53rd National Metallurgist day & 69th Annual technical meeting, 13-16 Nov, 2015.
16. Amit Kumar Singh, **Suhrit Mula**. Enhancement of mechanical properties and corrosion resistance of Al 2024 alloy processed by cryoforging followed by ageing. NMD ATM 2015, Le Meridian, Coimbatore. 53rd National Metallurgist day & 69th Annual technical meeting, 13-16 Nov, 2015.
17. Atul Kumar, K. Pal, **Suhrit Mula**. Effect of process parameters on microstructure and mechanical properties of friction stir processed Al 7075 alloy. NMD ATM 2015, Le Meridian, Coimbatore. 53rd National Metallurgist day & 69th Annual technical meeting, 13-16 Nov, 2015.
18. Hari Babu L, V.M. Suntharavel Muthaiah, **Suhrit Mula**: Thermal stabilization of Fe-based nanocrystalline alloys developed by mechanical alloying, presented paper in International Conference on Advanced Materials and Manufacturing Processes for Strategic sectors (ICAMPS 2015) in Trivandrum, Kerala organized by Indian Institute of Metals (IIM), on 13-15 May, 2015.
19. V.M. Suntharavel Muthaiah, **Suhrit Mula**: "Effect of Zirconium addition to Aluminium prepared by Mechanical alloying" presented paper in International Conference on Advanced Materials and Manufacturing Processes for Strategic sectors (ICAMPS 2015) in Trivandrum, Kerala organized by Indian Institute of Metals (IIM) on 13-15 May, 2015.
20. Sumit Ghosh, Ajay Kr. Singh, **Suhrit Mula**. Microstructure and Mechanical properties of IF-Steel processed by thermo-mechanical controlled rolling and multi axial forging. International Conference on Mechanical, Material, Industrial, Automotive, Aeronautical and Nano-Technology" (MANIT-2015), 28th Feb to 1st March, 2015. Published in Journal of Material Science and Mechanical Engineering (JMSME). Print ISSN: 2393-9095; Online ISSN: 2393-9109; Volume 2, Number 2; January-March, 2015 pp. 186-186.
21. Sumit Ghosh, **Suhrit Mula**. Mechanical behavior of fine grained Nb–Ti microalloyed steel processed by controlled rolling and cooling". Presented at NMD ATM 2014. 52nd National Metallurgist day & 68th Annual technical meeting, College of Eng., at Pune, 12-15 Nov, 2014,.
22. Dasharath S.M., **Suhrit Mula**. "Effect of alloying on mechanical properties and microstructure of cryodeformed brass". Presented at NMD ATM 2014. 52nd National Metallurgist day & 68th Annual technical meeting, College of Eng, at Pune12-15 Nov, 2014.
23. R. Kumar, Dasharath S.M., **Suhrit Mula**. Bulk ultrafine grains copper alloys developed by cryorolling. ICEMA'14, Indian Institute of Technology Roorkee, Saharanpur Campus, on Apr 5-6th, 2014.
24. Sooraj S., **Suhrit Mula**. Stabilization of Ultrafine Grained Steel developed by Mechanical Alloying for Nuclear Applications. PMAI 2014, Hotel Le Royal Meridien, Chennai, India, 23-25th January, 2014.
25. **Suhrit Mula,** Daria Setman, R.O. Scattergood, C.C. Koch. Structural evolution of $Cu_{1-X}Y_X$ alloys prepared by mechanical alloying: their thermal stability and mechanical properties. Presented at NMD-ATM 2013, Varanasi, India, 12-15th November, 2013. pp104-105.

26. **Suhrit Mula,** H. Bahmanpour, R.O. Scattergood, C.C. Koch. Formation of bulk copper based nanostructures by cryorolling and their mechanical properties. Accepted for oral presentation in International conference on strength of materials (16), 19-24 August, 2012.
27. P. Sahani, **Suhrit Mula,** U.K. Mohanty. Microwave Assisted Sintering of Some Copper Based Nano-Composites and its Evaluation. Presented on 8NSTSI 2011, Bhubaneswar, India,10th December.
28. P.K. Roy, **Suhrit Mula**. Comparison between conventional, vacuum and microwave sintering of Cu-Cr-4 wt.% SiC nanocomposites. ICONSET-2011, Sathyabama University, Chennai, India, November 28-30, 2011.
29. **Suhrit Mula,** H. Bahmanpour, K. Youssef, Ron Scattergood, C.C. Koch. Nanostructures formation and stabilization of Cu-Nb metastable solid solutions: Effect of Ag, Zr and Y. NMD-ATM-2011, IIM, Hyderabad, 13th -16th November, 2011.
30. C.C. Koch, R.O. Scattergood, B. VanLeeuwen, K. Darling, M. Atwater, **Suhrit Mula**, P.C. Kang. Enhancing the thermal stability of nanostructured metals by solute additions: TMS 2011, Columbus, Ohio, USA, October 16-20, 2011.
31. K. Youssef, D. Setman, M. Zehetbauer, **Suhrit Mula,** P.C. Kang, R.O. Scattergood, C.C. Koch. Mechanical Properties of Nanocrystalline Cu-, Mg-, and Fe-base alloys. Presented in TMS 2012, Orlando, Florida, USA, March 11-15, 2012.
32. P. Sahani and **Suhrit Mula**. Synthesis and characterization of copper-chromium–SiC nanocomposites by high energy ball milling. Selected for 3rd best paper award at International conference ICON 2010, Coimbatore, on 5-6 march 2010.
33. **Suhrit Mula**, S. Ghosh and S. K. Pabi. "Sintering characteristics of mechanically alloyed Al–Ni–Ti amorphous powder consolidated by pressure-less, pressure-assisted and spark plasma sintering." NMD-ATM 2009, at Kolkata 14-17 Nov' 2009.
34. **Suhrit Mula**, P. Sahani, P.S. Mohakud. "Solid state synthesis of Al-based Al-Si-Ni amorphous and/or nanostructured materials." NMD-ATM 2009, at Kolkata 14-17 Nov' 2009.
35. Sangita Pattanaik, P.S. Mohakud, **Suhrit Mula.** Synthesis of Al-Zn and Al-Zn-Si nanostructures by Mechanical Alloying. National seminar on 'Advancement of Nanotechnology in Physics', at Rourkela 7-8th Feb'2009.
36. S. K. Pabi, **Suhrit Mula**, and S. Ghosh. Structure and mechanical properties of Al-Al_2O_3 nanocomposites produced by a non-contact ultrasonic casting method, in: Structure-property correlation in engineering materials (SPC–2008). DAAD-Humboldt Alumni Workshop (SPC-2008) at Chandipore, Orissa on Dec 14-15, 2008.
37. **Suhrit Mula**, S. Ghosh, S. K. Pabi. "Synthesis of Al-based Al-Cr-Co-Ce alloy by mechanical alloying". Presented at International Conference on Advanced Materials Design & Development (ICAMDD-2005) at Goa on 14th-16th Dec'2005.
38. **Suhrit Mula,** P. K. Ray and B. C. Ray. "Assessment of interlaminar shear strength of hybrid composite subjected to a fluctuating humid environment". International Symposium of Research Students on Materials Science and Engineering, at IIT Madras, Chennai, India, December 20-22, 2004.
39. **Suhrit Mula**, P. K. Ray and B. C. Ray, "Effect of sub-zero weathering on hydrothermal behaviour of glass fibre reinforced polymer composites". 18th National Convention on 'Intelligent Processing of New Material' for Metallurgical & Materials engineers at Jaipur, India, 11-12th Oct'2004.
40. **Suhrit Mula**, T. K. Sinha, B. N. Mondal. "Investment casting of aluminium matrix composites reinforced with $(ZrSiO_4)_p$ by vortex method". 18th National Convention on Intelligent Processing of New Material' for Metallurgical & Materials Engineers at Jaipur, India, 11-12th Oct'2004.

41. B.N. Mondal, A.K. Lohar, D. Paswan, **Suhrit Mula**, "Study on development of near net shape manufacturing of Al/($ZrSiO_4$)p Composites through Investment Casting Process", The 7th Japan-India Joint Seminar on Advanced Manufacturing Systems, Machida-City, Tokyo, Japan, Feb 16-21, 2004.
42. A.K. Lohar, S.K. Das, **Suhrit Mula**, D. Chakraborty and B.N. Mondal, "Technological aspects of particulate reinforced Investment Cast metal matrix composite production". National conference on Investment Casting (NCIC-2003), at CMERI, Durgapur 22nd -23rd September, 2003.
43. B.N. Mondal, **Suhrit Mula**, A. K. Lohar and S. C. Panigrahi, "Study on Synthesis of Al/($ZrSiO_4$)$_p$ Composites through Investment Casting Process". National Seminar on "Science & Technology of Advanced Engineering Materials (STAEM-2003), IIM at Trivandrum, February 20-21, 2003**.**

Teaching Experience, New Courses or Laboratories

Title of course taught/teaching	Postgraduate / undergraduate	Sole instructor or with others	Year
At IIT Roorkee			
MTN-504:Phase Transformation	PG (Spring)	Sole instructor	2018
MTN-307, Materials Characterization	UG (Autumn)	Sole instructor	2017
MTN-504:Phase Transformation	PG (Spring)	Sole instructor	2017
MTN-503, Characterization of Materials	PG (Autumn)	Sole instructor	2016
MT-412, Heat Treatment Practices	UG (Spring)	Sole instructor	2016
MTN-307:Materials Characterization	UG (Autumn)	Sole instructor	2015
MT-504: Phase Transformation	PG (Spring)	Sole instructor	2015
MT-409: Characterization Techniques	UG (Autumn)	Sole instructor	2014
MT201B, Materials Science	UG (Spring)	Sole instructor	2014
MT409, Characterization Techniques	UG (Autumn)	Sole instructor	2013
MT201B, Materials Science	UG (Spring)	Sole instructor	2013
At NIT Rourkela			
MM-448; Advanced Engineering Materials	UG, Open elective	Theory taken by me	2011-12
MM-435; Testing of materials	UG	Do	2007, 2008
MM-212; Casting and solidification of materials	UG	Do	2008
MM-455; Corrosion and degradation of materials	UG	Do	2009
MM-646; Composite materials	PG	Do	2007
MM-636; Advanced processing of materials	PG	Do	2008
MM-635; Mechanical testing of materials	PG	Do	2007, 2008
MM-611; Phase transformations of metals	PG	Do	2009
MM-638; Mechanical working of materials	PG	Do	2010
Advanced materials	UG	Do	2011
Computer lab	UG	Laboratory class	2008, 2009

Mechanical testing lab	UG	Do	2009
Composite lab	UG	Do	2008
Heat treatment lab	UG	Do	2007

Referees:

Dr. SK Pabi, Professor,

Department of Metallurgical and Materials Engineering,

Indian Institute of Technology,

Kharagpur – 721 302, India.

Phone: 91-3222-283273

Fax: 91-3222-282280

Email: skpabi@metal.iitkgp.ernet.in

Dr. Sudipto Ghosh, Professor,

Department of Metallurgical and Materials Engineering,

Indian Institute of Technology,

Kharagpur – 721 302, India.

Phone: 91-3222-283294

Fax: 91-3222-282280

Email: sudipto@metal.iitkgp.ernet.in

Dr. N.K. Mukhopadhyay, Professor

Department of Metallurgical Engineering,
Institute of Technology, Banaras Hindu University,
Varanasi – 221005, India
Phone: 91-542-2369346, Extn. 228(O);
Fax: 91-542-2369478/2368428/2368174
Email: mukho.met@itbhu.ac.in, mukho_nk@rediffmail.com, mukho.nk@gmail.com

Dr. B. S. Murty, Professor

Department of Metallurgical and Materials Engineering,

Indian Institute of Technology, Madras,

Chennai 600 036, India

Phone: +91-44-22574751, 22574754;

Fax: +91-44-22574752

E-mail: murty@iitm.ac.in, murty.iitm@gmail.com

Dr. Carl C. Koch, Professor

Kobe Steel Distinguished Professor of Materials Science and Engineering,
Associate Department Head,
3006 Engineering Building I
Department of Materials Science and Engineering
North Carolina State University
911 Partners Way
Raleigh, NC 27606
USA
Phone: 919-515-7340
Email: carl_koch@ncsu.edu
Fax: 919-515-7724

(Dr. Suhrit Mula)