

Curriculum Vitae



Suhrit Mula, PhD

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Personal Data:

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

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 / (ZrSiO₄)_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 & Materials Engineering	83.1
5.	Ph.D.	IIT, Kharagpur	2009	Metallurgical & Materials Engineering	-

Research Interest and current research area:

- Superalloys
- High entropy alloys
- Advanced steels
- Aluminium alloy-based nanocomposites
- Mechanical properties of advanced metallic materials
- Fatigue and fracture analysis
- Mechanical alloying
- Cryo-deformation, rolling, forging.
- Severe plastic deformation
- Thermomechanical simulation of bulk metallic materials

Invited Talks delivered:

- Delivered an invited talk on Advanced Metallic Materials: Processing and Characterization at 1st International Symposium on Materials for Sustainable Development (ISMSD 2024) from 20-12-24-21-12-24, at IIT Indore, Organized by Departments of Metallurgical Engineering and Materials Science, and Civil Engineering along with Materials Advantage Student Chapter IIT Indore, funded by SPARC and UKIERI.
- Advances in Materials Processing and Characterization, Online ATAL AICTE FDP at SRM IST Delhi-NCR, Campus Ghaziabad, U.P., 2024-12-14.
- Delivered an invited talk on “Fundamentals and Advances in Powder Metallurgy” during 15-20th March 2021, at MMED, IIT Indore.
- Delivered an invited talk on “Advanced Materials Processing, Characterization and Applications (AMPCA – 2020)”, 8-12th September 2020, at MMED, VSSUT, Burla, Odisha.
- 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.

PhD thesis Examined: 7 (IIT Indore, NITR, IEST Shibpur, NIFFT Ranchi)

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 7 PhD theses from IIT Indore, 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.

Work Experience:

Teaching and Research

S. No.	Name and address of employer	Designation	Pay-scale	From	To	Duration	Type of organization
1.	INDIA FOILS LTD. KOLKATA, INDIA	GRADUATE ENGINEER TRAINEE	Rs.3840/MONTH	JULY 1997	JULY, 1998	1 YEAR	PRIVATE COMPANY
2.	CSIR-CMERI, INDIA	RESEARCH SCHOLAR	Rs.9000/MONTH	31.07.1998	30.07.2003	5 YEAR	CSIR LABORATORY
3.	NIT Rourkela	Teaching Assistant	Rs.9000 (CONSOLIDATED)	21.11.2003	31.12.2004	1 YEAR	ACADEMIC INSTITUTE (GOVT.)
4.	NIT Rourkela	ASST. PROFESSOR AGP-Rs 7,000/-	Rs.15,600-39,100/AGP 7000	28.03.2007	07.12.2012	4 YEAR 8 MONTH	ACADEMIC INSTITUTE (GOVT.)
5.	DST, GOVT. OF INDIA	BOYSCAST FELLOW	\$3000/MONTH	22.07.2010	19.07.2011	1 YEAR	BOYSCAST FELLOW, DST
6.	I.I.T, ROORKEE INDIA	ASST. PROFESSOR AGP-Rs 8,000/-	Rs.15,600-39,100/AGP 8000	10.12.2012	09.12.2015	3 YEAR	ACADEMIC INSTITUTE (GOVT.)

7.	I.I.T, ROORKEE INDIA	ASST. PROFESSOR AGP-Rs 9,000/-	Rs.37400- 67000/AGP 9000	10.12.2015	21.12.2018	3 YEAR	ACADEMIC INSTITUTE (GOVT.)
8.	I.I.T, ROORKEE INDIA	ASSOCIATE PROFESSOR	13A2/BASIC- Rs.171,700	22.12.2018	09-10-2023	4 YEARS 10 MONTH	ACADEMIC INSTITUTE (GOVT.)
9.	I.I.T, ROORKEE INDIA	PROFESSOR	14A	10.10.2023	CONTINUING	-	ACADEMIC INSTITUTE (GOVT.)

Sponsored Research Projects (Ongoing and completed):

Applicant as PI:

Title	Sponsoring Agency	Amount (Rs. in lakhs)	Start date	End date	PI	Co-PI (if any)
Hot deformation simulation study of cast Inconel 625 alloy and its high temperature fatigue behavior	SERB, New Delhi	59.204	March 2020	15 March, 2024	Suhrit Mula	Dr. A. Halder
Development of cast components in high entropy alloys	VSSC, ISRO	31.07	Oct. 2020	31 Oct., 2024	Suhrit Mula	Dr. S. Das
Fatigue and corrosion properties of ultrafine grained Al5083-SiCp nanocomposites developed by stir-casting + SPD processing for naval applications	CSIR, New Delhi	27.07	Nov. 2019	31 Aug., 2023	Suhrit Mula	No.
Synthesis and mechanical properties of mechanically alloyed copper-based nanocomposites for high strength and electrical applications	CSIR, New Delhi	22	01/04/2011	30/09/2014	Suhrit Mula	No.
Nanostructured grains stabilization of Al-alloys for ultra-light weight applications prepared by mechanical alloying	SRIC, IIT Roorkee	10	27/05/2013	26/05/2016	Suhrit Mula	No.

Applicant as Co-PI

Title	Sponsoring Agency	Amount (Rs. in lakhs)	Start date	End date	PI	Co-PI (if any)
Effect of thermomechanical processing on microstructure and mechanical properties of Co-Cr-Cu-Fe-Ni-Si based eutectic high entropy alloys	SERB, New Delhi	30.64	March 2019	26 March, 2023	Dr. M. Chopkar	Suhrit Mula
*LCF of cast 625 superalloy for turbine casing and forged 617 superalloy for rotor applications	IGCAR, Kalpakkam	194.0	01/01/2018	31/12/2020	Dr. U. Prakash	Suhrit Mula

*Under the scheme of R & D projects on “Development of Advanced Ultra Supercritical (Adv. USC) Technology for Thermal Power Plant.”

Sponsored Consultancy Projects

Title	Sponsoring Agency	Amount (Rs.)	PI or Co-PI	Start date	End date	Co-PI (if any)
Testing of JB-RE-BAR COUPLERS	JB Engineering & RE-Bar Couplers India P Limited, Siliguri, West Bengal, HO:10 A & B, 23, Industrial	17.5 lacs	Co-PI	April, 2018	July, 2018	Dr. DK Dwivedi (MIED)

	Area, Una, Himachal Pradesh					
Improvement in production of cast EN36C(S) alloy steel free from porosity and banded microstructure. (Project No. MMD-6003/2014-2015)	M/S Mahindra Sanyo Special Steel Pvt. Ltd. Khopoli, Maharashtra.	12.56 lacs	Co-PI	09/01/2014	31/08/2015	Dr. PK Ghosh (PI), Dr. Devendra Singh (Co-PI).

Organized Short-term courses:

Sl. No.	From	To	Name of the Course	As Chairman	Number of Participants
1	21 st May-2018	25 th May, 2018	SHORT TERM COURSE ON 'Excellence in marine materials: advanced processing, characterization & applications' Sponsored by AICTE.	Coordinator	34
2	1 st June, 2015	5 th June, 2015	Short Term Course on 'Advanced Aerospace Materials: Processing, Characterization and Applications' Sponsored by AICTE.	Coordinator	34

Post Graduate Thesis Supervision

(a) Doctoral Theses Supervision:

Sl. No.	Title	Year awarded	Name of Scholar	Co-supervisor (if any)
1	Mechanical properties of UFG low SFE Cu-Zn & Cu-Al alloys processed by cryo-rolling/forging	22.07.2013 Completed (March,17)	Dasharath Mabrukar (Enr. No. 13924003)	No.
2	Thermomechanical simulation kinetics to develop high strength IF and microalloyed steels	Completed (May,18)	Sumit Ghosh (Enr. No. 13924011)	No.
3	Thermal stability and mechanical properties of nanocrystalline Fe-Cr-X(Nb,Zr,Y) alloys prepared by mechanical alloying + spark plasma sintering	02.01.2014 Completed (March,19)	VMS Muthaiah (Enr. No. 13924022)	No.
4	Effect of cryo-FSP on microstructural evolution and mechanical properties of stir cast Al7075-SiC _p nanocomposites	Completed (August,19)	Atul Kumar (Enr. No. 14921004)	Dr. K. Pal (MIED)
5	Thermomechanical processing of alloy 625 and its mechanical properties under static and dynamic loading	24.12.2016 Completed (28th Sep., 23)	Godasu Aswin Kumar (Enr. No. 16921005)	Prof. U. Prakash (MMED)
6	Fe-42Ni invar-based ODS steels developed by mechanical alloying + spark plasma sintering	27.12.2018 Completed (4th Dec., 23)	Arpan Arora (Enr. No. 18921013)	No.
7	Novel thermomechanical processing of Nb-V microalloyed steel and its mechanical behavior	06.07.2018 Completed (14th May., 24)	Pravendra Pratap Singh (Enr. No. 18921008)	Dr. S. Ghosh (MMED)
8	Development of Al5083-SiC nanocomposites by stir casting+FSP and their mechanical properties	14.01.2020 Completed (01st July, 2024)	Gaurav Rajan (Enr. No. 19921013)	No.
9	Ageing Characteristics of Superni 625: Insights into Microstructural Transformation and Mechanical Response	19.02.2021 Completed (6th April 2026)	Sonika Chahar (Enr. No. 20921018)	No.
10	Dissimilar welding of cast superalloy and stainless steel and its mechanical properties	Ongoing (3 rd year)	Gopal Ji Rai (Enr. No. 22921007)	Dr. G. Agarwal (MMED)

11	Development of cast high-entropy alloys and their deformation behavior	Ongoing (2 nd year)	Apurba Mahato (Enr. No. 22921020)	No.
12	Dissimilar metal joining between Ni617 and 304H with rotary friction	13.01.2025 Ongoing (1 st year)	Arun Pratap Singh (Enr. No. 24921012)	Dr. Vikas Kumar

(b) Masters Theses Supervision:

Sl. No.	Title	Year awarded	Name of Scholar	Co-supervisor (if any)
1	Synthesis of Al-Zn and Al-Zn-Si nanostructures by mechanical alloying	2008	Sangita Pattanaik	No.
2	Structures and properties of Al-based Al-Si-Ni nanostructures developed by mechanical alloying	2009	PS Mohakud	No.
3	Synthesis and characterization of copper-based nanostructures developed by mechanical milling	2010	Pankajini Sahani	No.
4	Mechanical properties of ultrafine grains bulk copper alloy developed by cryorolling	2014	Ravi Kumar	No.
5	Mechanically alloyed copper based nanostructures for high strength and electrical contact applications	2014	B. Chauhan	No.
6	Stabilization of ultrafine grain steels developed by mechanical alloying for nuclear application	2014	Sooraj S	No.
7	Microstructure and mechanical properties of age-hardenable Al-alloy processed by cryodeformation	2015	Amit K Singh	No.
8	Enhancement of mechanical properties of ultra-low carbon microalloyed steel by thermomechanical processing	2015	Ajay K. Singh	No.
9	Thermal stabilization of nanocrystalline Fe-Cr alloys developed by mechanical alloying	2015	Hari Bau L	No.
10	Aluminium based nanostructured materials prepared by mechanical alloying	2016	Prem Kumar Asok Kumar	No.
11	Preparation and characterization of Al-SiC _p nanocomposites developed by stir casting	2016	Kumar Saurabh	No.
12	Mechanical properties of Al-based nanocomposites developed by stir casting followed by cryoforging	2017	Chayan Sengar	No.
13	Mechanical properties and corrosion resistance of friction stir processed LFE Cu-based alloys	2017	Lekhraj Verma	No.
14	Mechanical properties and corrosion resistance of mechanically alloyed Fe-based nanostructures consolidated by spark plasma sintering	2017	Arpan Arora	Dr. BV Manoj Kumar
15	Ytria reinforced Fe-Cr ferritic alloy based nanocomposites for fusion reactor structural applications	2018	Moses JP	No.
16	Effect of cyclic heat treatment on microstructure and mechanical properties of microalloyed steel	2019	Swetank Dubey	No.
17	Effect of hot working on microstructure and mechanical properties of 13Cr martensitic stainless steel	2020	Prashant Agarwal	No.
18	Development and characterization of high entropy superalloy by powder metallurgy	2021	Amol Patil	No.
19	Development of cast Ni ₄₅ Co ₁₅ Cr _{11.75} Fe ₁₂ Al _{9.75} Ti _{6.5} high entropy superalloy for aerospace applications	2022	Siddhi Surbhi	No.
20	Microstructural and Mechanical properties of Ni-based high entropy superalloys prepared by mechanical alloying and spark plasma sintering	2023	Bhupendra Patel	No.

Publications:

(a) Book Chapter/Book published

Sl. No.	Name of book/monograph/ book chapters	Name of co-author(s), if any	Year of publication	Publisher with address
1	Microstructures, Mechanical Properties and Strengthening Mechanisms of cast Cu–Al Alloys Processed by Cryorolling in Recent Trends in Materials and Devices.	S.M. Dasharath, S. Mula	pp. 479-482, volume 178 (2016).	Springer Proceedings in Physics book series (SPPHY).
2	Aluminium based nanocomposites: Metal Matrix Nanocomposites,	S. Mula , S.K. Pabi, S. Ghosh	pp.1-184, 2011, ISBN-10: 3846542172, ISBN-13: 978-3846542170.	LAP LAMBERT Academic Publishing

(b) Details of Research Publications in Journals (88)

Sl. No.	Authors	Title	Name of Journal	Page	Vol	Year
88	T. Du, M. Pan, B. Li, S. Zhu, Z. Wei, G. Wu, Suhrit Mula , P.C. Kang	Tribological behavior of TiN-coated titanium fiber reinforced 5056-aluminum matrix composites	Materials Characterization	115992	232	Feb 2026
87	Gopal Ji Rai, Suhrit Mula, Gautam Agarwal	Investigating metallurgical integrity and temperature-dependent mechanical performance of multi-pass dissimilar welds between a cast nickel-based 625 superalloy and 304H stainless steel	International Journal of Pressure Vessels and Piping, Part A	105670	219	Feb 2026
86	Apurba Mahato, Pravendra Pratap Singh, Govind Bajargan, Suhrit Mula	Hot deformation behavior of a cast dual-phase CoCrFeNiAl _{0.7} high-entropy alloy: validation of processing maps and microstructural characteristics	Journal of Alloys and Compounds	185583	1050	Jan 2026
85	Arpan Arora, Argha Dutta, N Gayathri, Paramita Mukherjee, Suhrit Mula	Proton irradiation-induced evolution in microstructure, crystallinity, and mechanical behavior of ODS steel	Journal of Materials Research and Technology	3456-3461	39	Nov.-Dec. 2025
84	P. P. Singh, S. Mula	High-cycle fatigue behaviour and damage evaluation in a Nb-V stabilized low-carbon martensitic steel	Metallurgical and Materials Transactions A	4361–4376	56	Oct, 2025
83	P. P. Singh, M. Kumar, S. Mula	Synergistic effects of hot rolling and heat treatments on microstructural characteristics and achieving ultra-high strength in a V-Nb microalloyed steel	Metallurgical and Materials Transactions A	4524–4542	56	Oct, 2025
82	S. Chahar, S. Mula	Influence of Pre-straining on Phase Transformation Kinetics in a Cast Homogenized Superni 625 During Thermal Exposure	Metallurgical and Materials Transactions A	3730–3747	56	Sep, 2025
81	Ashwin Kumar Godasu, Sonika Chahar, Atul Kumar, Ujjwal Prakash, Suhrit Mula	Dislocation Substructure Evolution and Damage Accumulation in Large-Grained Homogenized and Fine-Grained Hot-Rolled Superni 625 During LCF at 298 K and 973 K	Metallurgical and Materials Transactions A	2834–2852	56	Aug, 2025
80	A. Dutta, A. Sarkar, N. Gayathri, S. Bysakh, A. Arora, S. Dey, S. Srivastava, S. Mula, P. Mukherjee	Effects of Cold Rolling–Induced Defects on Proton Irradiation Response in Nb-1Zr-0.1 C Alloy	Nuclear Science and Engineering	1162-1180	199	July, 2025
79	Arpan Arora, Ankur Kumar, Argha Dutta,	Degradation of Fe-Ni based ODS alloys in extreme environmental conditions	Materials Today Communications	112501	46	June 2025

	N Gayathri, Paramita Mukherjee, Suhrit Mula					
78	Gaurav Rajan, Atul Kumar, Suhrit Mula	Influence of friction stir processing on wear behavior of nanosized SiC reinforced AA5083 nanocomposites developed by stir casting	Journal of Manufacturing Processes	1631-1649	141	May 2025
77	Arpan Arora, Suhrit Mula	Effects of Zr, Al, and Al+Zr Addition on Phase Evolution Characteristics and Strengthening Mechanisms of Fe-42Ni-2Y 2O3 Oxide Dispersion Strengthening Steels Developed by Mechanical Alloying and Spark Plasma Sintering	Adv. Eng. Mater.	2400370(1-14)	27	March, 2025
76	Sonika Chahar, Suhrit Mula	Tensile deformation characteristic and SASH modeling of Superni 625 alloy: Synergistic effects of grain size, ageing time, and deformation micromechanisms	Journal of Alloys and Compounds	179113	1017	Feb, 2025
75	Pravendra Pratap Singh, V Anil Kumar, Suhrit Mula, Indra Vir Singh, GS Vinod Kumar	Flow stress modeling and microstructural evolution during hot compression of Al-4.8Mg-0.3Sc alloy produced by laser powder bed fusion	Journal of Alloys and Compounds	178011	1010	Jan, 2025
74	A. Mahato, S. Chahar, R. Singh, G. Bajargan, S. Mula	Compositional engineering of CoCrCuFeNiAlx high entropy alloys to achieve superior yield strength-ductility synergy	Materials Science and Engineering: A	147235	915	Nov. 2024
73	P.P. Singh, S. Mula, S. Ghosh	Grain refinement, strain hardening and fracture in thermomechanically processed ultra-strong microalloyed steel	Materials Today Communications	107582	38	2024
72	A.K. Godasu, S. Mishra, U. Prakash, A. Haldar, S. Mula	Complementary shear banding during warm rolling of alloy 625 leads to uncharacteristic development of γ -fiber texture	Metallurgical and Materials Transactions A	652-673	55	2024
71	S. Chahar, A.K. Godasu, A. Haldar, S. Mula	Phase transformation kinetics in a homogenized cast alloy 625 and its impact on deformation micromechanisms	Philosophical Magazine	1-27	104	2024
70	A. Arora, A. Dutta, N. Gayathri, S. Mula	Proton irradiation, tribological and corrosion characteristics of Fe-Ni based ODS alloys	Materials Today Communications	107563	37	2023
69	P.P. Singh, S. Ghosh, S. Mula	Dry-sliding wear behaviour of a novel low-carbon martensitic structure steel alloyed with Nb and V	Tribology International	108959	189	2023
68	G. Rajan, S. Mula	Synergetic effects of cryo-FSP on microstructural, mechanical and corrosion behavior of stir cast AA5083-2wt.% SiC nanocomposite	Journal of Manufacturing Processes	19-34	106	2023
67	A. Arora, B. Pratap, S. Mula	Effect of sintering temperature and aluminium addition on thermal stability, micrographic features, and mechanical properties of Fe-Ni based ODS alloys	Journal of Alloys and Compounds	170336	956	2023
66	G. Rajan, A. Kumar, A.K. Godasu, S. Mula	Effect of friction stir processing on microstructural evolution and mechanical properties of nanosized SiC reinforced AA5083 nanocomposites developed by stir casting	Materials Today Communications	105912	35	June 2023
65	P.P. Singh, S. Ghosh, S. Mula	Strengthening behaviour and failure analysis of hot-rolled Nb+V microalloyed steel processed at various coiling temperatures	Materials Science and Engineering: A	144210	859	Oct, 2022
64	A. Arora, S. Mula	Phase evolution characteristics, thermal stability, and strengthening processes of Fe-Ni based ODS invar steel produced by mechanical alloying and spark plasma sintering	Materials Science and Engineering: A	143972	856	Oct, 2022
63	P.P. Singh, S. Mula, A. Malakar, S. Ghosh	Strain-rate dependent workability and plastic flow instability of a (Nb+ V) stabilized microalloyed steel	Materials Today Communications	103519	31	Jun, 2022

62	A.K. Godasu, S. Mishra, U. Prakash, S. Mula	Tensile deformation modeling of a homogenized cast alloy 625: Effects of large grain size	Metallurgical and Materials Transactions A	2239-2258	53 (6),	Apr, 2022
61	A. Arora, S. Mula	Effect of Ti addition on thermal stability and phase evolution of super-invar based yttria added ODS alloys developed by mechanical alloying and spark plasma sintering	Journal of Alloys and Compounds	163336	899	Apr, 2022
60	PP Singh, S Ghosh, S. Mula	Flow stress modeling and microstructural characteristics of a low carbon Nb-V microalloyed steel	Materials Today Communications	103156	30	Mar, 2022
59	S. Ghosh, S. Mula, A. Malakar, M. Somani, J. Kömi	High cycle fatigue performance, crack growth and failure mechanisms of an ultrafine-grained Nb+Ti stabilized, low-C microalloyed steel processed by multiphase controlled rolling and forging	Materials Science and Engineering: A	141883	825	Sep, 2021
58	H. Liu, P.C. Kang, G. Wu, Z. Wang, N. Zhang, S. Mula	Ablation mechanism of AlSi/graphite dissipative heat protective composites under an oxy-acetylene torch	Ceramics International	27925-27933	47	Oct., 2021
57	V.M.S. Muthaiah, C.C. Koch, S. Mula	Thermal stability and mechanical properties of Fe-Cr-Zr alloys developed by mechanical alloying followed by spark plasma sintering	Journal of Alloys and Compounds	158266	856	2021
56	A. Arora, A. Kumar, S. Mula	Effect of Y ₂ O ₃ on mechanical and corrosion properties of Fe and Fe-Ni alloys prepared by mechanical alloying followed by spark plasma sintering	Journal of Materials Engineering and Performance	1387-1397	30	2021
55	Moses JP, V.M.S. Muthaiah, S. Mula	Yttria reinforced Fe-Cr ferritic alloy based nanocomposites for fusion reactor structural applications	Metallurgical and Materials Transactions A	627-643	52	2021
54	S. Ghosh, S. Mula , M. Somani, J. Kömi	Fracture toughness and fatigue crack growth characteristics of UFG microalloyed and IF steels processed by critical phase control multiaxial forging	Materials Science Forum	481-486	1016	2021
53	A. Kumar, K. Pal, S. Mula	Effects of cryo-FSP on metallurgical and mechanical properties of stir cast Al7075-SiC nanocomposites	Journal of Alloys and Compounds	156925	852	2021
52	S. Ghosh, M.C. Somani, D. Setman, S. Mula	Hot Deformation Characteristic and Strain Dependent Constitutive Flow Stress Modelling of Ti + Nb Stabilized Interstitial Free Steel	Metals and Materials International	2481-2498	27	2021
51	A.K. Godasu, U. Prakash, S. Mula	Flow stress characteristics and microstructural evolution of cast superalloy 625 during hot deformation	Journal of Alloys and Compounds	156200	844	Dec., 2020
50	S. Ghosh, M.C. Somani, D. Setman, S. Mula	Elucidation of deformation mechanisms and construction of processing maps for a Ti+Nb stabilized IF steel	Materials Science and Engineering: A	139648	790	July, 2020
49	PC. Kang, H. Liu, W. Yang, W. Wang, N. Zhang, Q. Zhao, S. Mula , G. Wu	Microstructure and ablation behavior of SiMo/graphite composites with excellent short-time ablation resistance	Corrosion Science	108590	168	2020
48	S. Ghosh, S. Mula	Improvement of fracture toughness of Ti+Nb stabilized microalloyed and interstitial free steels processed through single phase regime control multiaxial forging	Materials Science and Engineering: A	138817	772	2020
47	A. K. Godasu, A. Kumar, S. Mula	Influence of cryocooling on friction stir processing of Al-5083 alloy	Materials & Manufacturing Processes	202-213	35	2020
46	S. Ghosh, Jukka Kömi, S. Mula	Flow stress characteristics and design of innovative 3-steps multiphase control thermomechanical processing to produce ultrafine grained bulk steels	Materials & Design,	108297	186	2020
45	S. Ghosh, S. Mula	Fracture toughness characteristics of ultrafine grained Nb-Ti stabilized microalloyed and	Materials Characterization	110003	159	2020

		interstitial free steels processed by advanced multiphase control rolling				
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	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	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
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 steel: Microstructure and mechanical properties	Materials Science and Engineering: A	218-233	646	2015
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
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 ₂ O 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. Pratihari, 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. Koch	Structural investigation of vacuum sintered Cu–Cr and Cu–Cr–4% SiC nanocomposites prepared by mechanical alloying	Materials Science and Engineering: A	7781-7789	528	2011
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
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 ₂ O 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 hydrothermal 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 Hydrothermal 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

Details of Research Publications presented in Conferences (59)

TEM - Introduction, Principles and techniques, Workshop on TEM Sample Preparation and HR-TEM operation, 7th – 11th JULY 2025, at IIT Roorkee.

1. **Sonika Chahar**, Suhrit Mula, Evolution of deformation micromechanism in thermally exposed Superalloy 625: Tracing strain hardening characteristic using a physics-based model. **18th European Congress and Exhibition on Advanced Materials and Processes – FEMS EUROMAT 2025, September 2025, Poster presentation, Federation of European Materials Societies.**
2. **Sonika Chahar**, Suhrit Mula, Transition in deformation behavior of heat-treated superalloy 625: Predicting flow stress curves using a physics-based model. The 20th International Conference on Strength of Materials, Oral presentation, June 2025, The Japan Institute of Metals and Materials.
3. **Gaurav Rajan**, Suhrit Mula, “Role of nanosized SiC particles on the microstructural evolution and mechanical behavior of FSPed AA5083 alloy” at **IIM-ATM 2024** at **GKVK Bangalore** from 20-22 Nov 2024.
4. **Sonika Chahar**, Suhrit Mula, SASH modeling of superalloy 625 alloy: correlating microstructure, deformation micromechanism and tensile characteristics. IIM-ATM 2024, International Symposium on Transformational Technologies in Materials & Manufacturing. Oral presentation, November 2024.

5. Ashwin Kumar Godasu, **Suhrit Mula**, Flow stress modeling of cast alloy 625 and its deformation micro-mechanisms. **Delivered a keynote talk by Suhrit Mula at International Conference on Fundamental and Industrial Research in Materials (iConFIRM 2023)**, 12-14 December 2023, IIT Ropar, Punjab, India.
6. Pravendra Pratap Singh, M. Kumar, S. Ghosh, **Suhrit Mula**. "Achieving 1.4 GPa tensile strength with good ductility in a novel low-alloy low-carbon martensite steel." **Materials Science and Technology (MS&T23)**, 1-4 October 2023 in Columbus, Ohio, USA.
7. Arpan Arora, **Suhrit Mula**. Effect of Zr and Al addition in Fe-Ni-Y₂O₃ invar ODS alloy prepared through mechanical alloying and spark plasma sintering. **International Conference on Fundamental and Industrial Research in Materials (iConFIRM 2023)**, 12-14 December 2023, IIT Ropar, Punjab, India.
8. Gaurav Rajan, **Suhrit Mula**. Oral Paper Presentation on "Influence of Cryo-FSP on Microstructural Evolution and Mechanical Behaviour of Stir Cast AA5083-SiC Nanocomposite" at **Materials Science & Technology (MS&T) Technical Meeting and Exhibition, 2023 at Columbus, Ohio, USA** during October 1-4, 2023.
9. Sonika Chahar, **Suhrit Mula**. Deformation micromechanisms and phase transformation of a large grained homogenized cast Superni 625 alloy. **International Conference on Fundamental and Industrial Research in Materials (iConFIRM 2023)**, 12-14 December 2023, IIT Ropar, Punjab, India.
10. Pravendra Pratap Singh, **Suhrit Mula**, S. Ghosh. "Microstructure-property relationship in a 1.4 GPa tensile strength with good ductility low-carbon low-alloy martensite steel." **International Conference on Fundamental and Industrial Research in Materials (iConFIRM 2023)**, 12-14 December 2023, IIT Ropar, Punjab, India.
11. Apurba Mahato, Govind, **Suhrit Mula**. Effect of Al Content on Mechanical Behavior of Cast AlCoCrCuFeNi High-Entropy Alloys. **Advanced Materials and Manufacturing Technologies (AMMT 2023)**. CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram. February 23-24, 2023.
12. Arpan Arora, **Suhrit Mula**. Temperature-based Tribological study on Ti and Ti+Al added Invar-based ODS alloy prepared through mechanical alloying and spark plasma sintering, **India-Trib 2022**, 12-14th Dec., 2022. **International Conference on Industrial Tribology**, New Delhi, India.
13. Arpan Arora, **Suhrit Mula**, Effect of Ti and Al addition on microstructural and mechanical properties in Y₂O₃ added invar based ODS alloy followed by mechanical alloying + SPS route for high-temperature applications, **NuMat2022**, Nuclear Materials, Ghent, Belgium, 24-28th October 2022.
14. Gaurav Rajan, **Suhrit Mula**: Study on microstructural and mechanical properties of friction stir processed AA5083-SiC nanocomposites, **International Conference on Advanced Materials and Processes: Challenges and Opportunities (AMPCO-2022)**, held from 17–19 October 2022, IIT Roorkee, Uttarakhand, India.
15. Ashwin Kumar Godasu, **Suhrit Mula**, Ujjwal Prakash, Thermomechanically controlled rolling schedule of cast & homogenized superalloy 625 for AUSC power plant applications. **International Conference on Advanced Materials and Processes: Challenges and Opportunities (AMPCO-2022)**, held from 17–19 October 2022, IIT Roorkee, Uttarakhand, India.
16. Gaurav Rajan, **Suhrit Mula**: Influence of friction stir processing on the stir cast AA5083-SiC_n nanocomposites, **NMD-ATM 2022**, held from 13–16th November 2022, in Hyderabad, Telangana, India.
17. Arpan Arora, **Suhrit Mula**, Effect of Y₂O₃ and Al addition on mechanical properties and micrographic features of Fe-Ni-Zr invar alloys prepared by mechanical alloying + spark plasma sintering. **International Conference on Advanced Materials and Processes: Challenges and Opportunities (AMPCO-2022)**, held from 17–19th October 2022, IIT Roorkee, Uttarakhand, India.
18. Kishore S, Sourav Das, **Suhrit Mula**, Microstructural and mechanical properties evolution during tempering of novel developed continuously cooled carbide free bainitic steel, **International Conference on Advanced Materials and Processes: Challenges and Opportunities (AMPCO-2022)**, held from 17–19th October 2022, IIT Roorkee, Uttarakhand, India.
19. Pravendra Pratap Singh, S. Ghosh, **Suhrit Mula**. "Hot/warm deformation behaviour and flow instability in a low carbon V-Nb stabilized microalloyed steel". **NMD-ATM 2022**, held from 13–16th November 2022, in Hyderabad, Telangana, India.
20. Pravendra Pratap Singh, **Suhrit Mula**, S. Ghosh. "Ferrite grain refinement by thermomechanical controlled processing in low carbon Nb-V stabilized microalloyed steel". **International Conference on Advanced Materials and Processes: Challenges and Opportunities (AMPCO-2022)**, held from 17–19th October 2022, IIT Roorkee, Uttarakhand, India.
21. Arpan Arora, **Suhrit Mula**, Effect of Temperature on Fe-Ni based ODS steel consolidated by mechanically alloying and spark plasma sintering, **International Conference on Powder Metallurgy India**, 18-20th April 2022, Virtual Mode.
22. Sumit Ghosh, **Suhrit Mula**. Superior mechanical properties of nano-grained Nb-Ti stabilized IF and low C microalloyed steels processed by critical phase control multi-axial 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**.
23. 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.
 24. Arpan Arora, B.V. Manoj Kumar, **Suhrit Mula**. Characterization of Spark plasma sintered Fe-Ni-Y₂O₃ 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.
 25. 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.
 26. 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.
 27. 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.
 28. 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.
 29. 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.
 30. 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.
 31. 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.
 32. 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.
 33. 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.
 34. 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.
 35. 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.
 36. 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.

37. 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.
38. 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.
39. 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.
40. 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.
41. 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,.
42. 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 Pune 12-15 Nov, 2014.
43. 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.
44. 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.
45. **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.
46. **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.
47. 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.
48. 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.
49. **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.
50. 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.
51. 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.
52. 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.
53. **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.
54. **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.
55. 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.

56. S. K. Pabi, **Suhrit Mula**, and S. Ghosh. Structure and mechanical properties of Al-Al₂O₃ 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.
57. **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.
58. **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.
59. **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.
60. **Suhrit Mula**, T. K. Sinha, B. N. Mondal. "Investment casting of aluminium matrix composites reinforced with (ZrSiO₄)_p by vortex method". 18th National Convention on Intelligent Processing of New Material' for Metallurgical & Materials Engineers at Jaipur, India, 11-12th Oct'2004.
61. B.N. Mondal, A.K. Lohar, D. Paswan, **Suhrit Mula**, "Study on development of near net shape manufacturing of Al/(ZrSiO₄)_p Composites through Investment Casting Process", The 7th Japan-India Joint Seminar on Advanced Manufacturing Systems, Machida-City, Tokyo, Japan, Feb 16-21, 2004.
62. 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.
63. B.N. Mondal, **Suhrit Mula**, A. K. Lohar and S. C. Panigrahi, "Study on Synthesis of Al/(ZrSiO₄)_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-106: Materials Science	UG (Spring)	With SMI	2023
MTN-503: Characterization of Materials	PG (Autumn)	Sole instructor	2022
MTN-504:Phase Transformation	PG (Spring)	Sole instructor	2021
MTN-503: Characterization of Materials	PG (Autumn)	Sole instructor	2021
MTN-307: Materials Characterization	UG (Autumn)	Sole instructor	2020
MTN-504:Phase Transformation	PG (Spring)	Sole instructor	2020
MTN-307: Materials Characterization	UG (Autumn)	Sole instructor	2019
MTN-504:Phase Transformation	PG (Spring)	Sole instructor	2019
MTN-307: Materials Characterization	UG (Autumn)	Sole instructor	2018
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

Suhrit Mula

(Dr. Suhrit Mula)