



I review for 'Materials & Design', 'Measurement' and 'Precision Engineering'

ELSEVIER

1. **NAME:** SOMNATH CHATTOPADHYAYA
2. **FATHER'S PROFESSION:** Ex. Head of the Department of Political Science, City College (Calcutta University)
3. **PERMANENT ADDRESS:** A B – 6 5, SECTOR – I, BIDHAN NAGAR, KOLKATA, WEST BENGAL, INDIA, PIN – 7 0 0 0 6 4.
4. **CONTACT NO.:** PHONE – 09431954821, Email: somnathchattopadhyaya@iitism.ac.in
5. **PASSPORT NO.:** Z7271001 Valid till 2034
6. **DATE OF BIRTH:** First December 1968.
7. **NATIONALITY:** INDIAN,
8. **QUALIFICATIONS:**

ACADEMIC:

Award: Merit Award from Barrackpore Sub-Division for Both **Secondary** and **Higher Secondary**

Exam Passed	Board / Institute	Main Subjects	Marks Obtained
Higher Secondary Examination (1987)	W.B.C.H.S.E.	Literature, Physics, Mathematics, Chemistry, Statistics	76.40 % National Scholar Rank – 103rd (out of 3,00,000)
Secondary Examination (1985)	W.B.B.S. E	Humanities, Science, Mathematics, Additional mathematics	82.56% National Scholar, Rank – 63rd (out of 3,00,000) Letter Marks – Six Subjects

Examinations

(B) TECHNICAL:

Degree	Institute	Subjects	Marks
Erasmus Fellow for a week, June, 2018	Technical University of Kosice, Slovakia	Delivering Lectures on Manufacturing and organized International Conference ICMEM 2018	NA
Participant for Erasmus+ International meet (June, 2017)	UPM, Madrid	Attending Erasmus+ International meet for one and Half week.	NA
Erasmus Fellow (May, 2016)	Institute of Geonics, Ostrava, Czech Republic	3 weeks research in disintegration of materials with high pressure water jet, abrasive and pulsating waterjet cutting	NA
Post-Doctoral Research (May, 2015)	Institute of Geonics, Ostrava, Czech	5 weeks research on high pressure water jet, abrasive and pulsating waterjet cutting	NA

	Republic		
Erasmus Fellow (September, 2013)	AALTO University, Helsinki, Finland	6 Weeks Research on Friction Stir Surfacing at AALTO University Helsinki, Finland from September, 2013 to November 2013.	NA
PhD (Prodn. Engg.) Jan, 2005	BIT-Mesra, Ranchi	Transfer of Agile Manufacturing Technology To Rural Medium And Small Scale Industries (With Special Reference To Indian Manufacturing Environment)	NA
M.Tech Mechanical Engg.(1999)	Indian Institute of Technology (Indian School of Mines)	Facility System Analysis for the Handling of Materials in a Conveyor belt Manufacturing unit	Equivalent to 1st Class (M.Tech By research)
B.E. in Production Engg. (1992) (4.5 Years)	Jadavpur University	Manufacturing, Industrial Engineering, Production Management, CAM.	79.85% First Class Hon. Rank 7th (out of 22)
“A” Level (1998) Post Graduate Diploma in Computer Science	DOEACC	C, System Analysis & Design, DBMS, Unix & DOS, Business Data Processing, Systems Software, Computer Simulation, Digital Computer & Assembly Language, Computer Graphics, Data Communication & Networks, Data Structure through C, Projects.	55-64%
“O” Level (Business Professional Programmer) (1994)	DOEACC	Computer Fundamentals, MS Office, System Analysis & Design, Programming in BASIC	65 – 74%

(D) Professional Certificate: ISO 9001 Internal Auditor in Design Department

9. External PhD thesis examiner Jadavpur University, NIT-Durgapur, NIT-Trichy, NIT-Jamshedpur, BIT Mesra, BIT Sindhri, KIT Bhubaneswar, GLA Mathura, NIT - Rourkella, Osmania University, NIT-Patna.

10. Works Experience: 33 years 6 Months

Company		Duration	Basic	
Indian Institute of Technology (ISM)		22 Yrs	CTC Rs. 50.00 Lacs p.a. (Basic – Rs.2, 01,600/-)	
BIT-Mesra (Ranchi) (Lecturer – Dept. of Production Engg.)		4 Yrs	1.44 L p.a.	
Unigears (P) Ltd. (Asst. Mgr.-Operations)		2 Yrs	0.60 L p.a.	
SWIL (Asst. Mgr. – Planning & Design)		2 Yrs	0.50 L p.a.	
Dunlop India Ltd. (Section Manager-IE)		4 Yrs	0.48L p.a.	
From	To	Designation	Organization	Job
5th September,2023	30th June,2025	Head of the Department	Indian Institute of Technology (Indian School of Mines)	Heading the department of Mechanical Engineering
17th August,2023	Till date(1 Yr 8 months)	Professor (Mechanical Engg.)		Teaching Manufacturing Technology, Advanced Manufacturing System, Nontraditional Manufacturing Processes
15 th June 2009	16 th August,2023	Associate Professor (Mechanical Engg.)		Teaching Manufacturing Technology, Advanced Manufacturing System, Nontraditional Manufacturing Processes
20 th October,2021	27 th Sep.,2024	Professor –In-Charge- Online and Continuing Education Program		In charge of all the Faculty Development programs and NPTEL courses, Webinars, Online and Continuing education Program
21 st May,2018	3 rd July,2019	Associate Dean (Innovations and Incubation)		International Relations, Innovations and Incubation
15 th June,2006	June 2009	Assistant Professor (Mechanical Engg.)		Teaching Manufacturing Technology, Advanced Manufacturing System, Nontraditional Manufacturing Processes
19 th May,2003	Jan 2008	Workshop Superintendent		
7 th July, 1999	18 th May, 2003	Asstt. Professor – Production Engg.	Birla Institute of Technology – Mesra	Teaching –Non-Traditional Mfg. Processes, Reliability Engg.
Jan, 1997	July 1999	Asstt. Manger – Projects Manager- Operations	Unigears (P) Ltd.	Project Execution, Vendor Development in different parts of India,
				Shop Floor Managing, Vendor Development, Customer Interactions (Philips, Telco, ESAB)
Nov, 1994	Feb, 1996	Asstt. Manager-Projects – Heavy Machine Building Division	Shalimar Wire Industries Ltd. (SWIL)	Planning, Vendor Development, Project execution, MIS, Project Execution, ISO 9001 Implementation

July, 1991	Nov, 1994	Section Manager – IE (Truck Tyre & IP Div.)	Dunlop India Ltd.	Development of Industrial Engineering Standards, Long Term Rate Settlement with Unions, MIS
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11. Awards, Projects & Patents

2018

Received award of the best team paper in international conference held in University of Novisad, Serbia, held in 2018

2015

Recipient of the Best Researcher Award instituted by Canara Bank Ltd. From the department of Mechanical Engineering of IIT(ISM) based on the Cumulative Impact Factors of SCIE journals.

2013

Second best Paper in an Annual International Conference organized by TEAM Society of Eastern European Countries held at Presov, Slovakia in November, 2013.

2000

1. Received the best paper award for presentation of the paper entitled “Smart Layer Approach for Built Diagnostic”, in one of the technical sessions in the National Conference on “Agile Engineering”, 2000.

2. Received the best paper award for the presentation of the paper entitled “Design of a Mechatronic Factory – A case study on a Conveyer Belt Manufacturing unit”, in one technical session of the National Seminar on “Mechatronics in Manufacturing Systems” and 14th National Convention of Production Engineers, IE (I).

Sl. No.	Source	Role & Title	Outlay	Status
1.	DST	Co-PI Laser-based manufacturing of multi-layer polymer-metal sandwich composite and performance assessment for lightweight material applications	Rs.54.39 Lacs	14th Feb,2023 Ongoing
2.	DRDO Hyderabad	Role – Solo PI , Critical Investigation on alloy stainless steel join using Friction Stir Welding for Aerospace Application (Project No. CAS/2021-22/MMG/22006020/SO/0185. Engg.)	Rs.9.971 Lacs	Completed on 24th Jan,2024
3.	DST (CCORD)	Role- Co-PI Investigation into the planning and design aspects governing the selective coal cutting technology using surface miner for various rock conditions for clean coal production	Rs.3.36 Crore	31st July,2019 (Ongoing) To be completed by 31st July,2024
4.	NPIU (Under TEQIP – III collaborative Scheme)	Role – Co PI , Development and characterization of under – water friction stir welding (UWFSW) process	Rs.13.50 Lacs	Completed in 2021
5.	NPIU (Under TEQIP – III collaborative Scheme)	Role – Co PI Design & Development of a Proof-of-Concept Model of a Doubly Curved Membrane based Space Structure” has been approved under “TEQIP Collaborative Research Scheme	Rs.9.750 Lacs	10th April,2024 Project ID 1-5730065406
6.	Ministry of Power	Role Co-PI , Development of a selection Methodology for Road Header and Tunnel Boring Machine and Road Header for different Geological Character for Road Tunneling (Collaboration with CIMFR – Nagpur),	Rs. 3.50 Crore IIT (ISM) – Rs. 1.23 Crore Rest with CIMFR Nagpur	Completed in 30th Sep,2020
7.	DRDO Hyderabad	Role – Solo PI , Critical Investigation into the cracking related to stress corrosion in maraging	Rs.9.971 Lac	Completed in 3rd March,20

		steel weldment. (Project No. DRDO (11)/2018-19/604/MECH. Engg.)		
8.	Indo-Australian Govt Fund	Role – Member of three member IIT/ISM team along with the Faculty members of Royal Melbourne Institute of Technology Topic – Advancement in Mining	27,000 Australian \$+ 23,741 Australian \$ (Rs.11,54,381/-) received by IIT(ISM)+AUS\$10,860 as contg. expenses https://www.dfat.gov.au/people-to-people/foundations-councils-institutes/australia-india-council/adynamicmix/how-victoria-helping-improve-mining-conditions-india	Completed in Jan,2020
9.	UGC	Role – Solo PI, Critical analysis of heat distribution in Submerged Arc Welding Process	Rs.10.160 Lac	2013 (Completed)
10.	AICTE TAPTEC	Role- Solo PI, Development of Manufacturing System	Rs.5.00 Lac	2000 (Completed)

Sl. No.	Name of the candidate	Title of the thesis	Role	Date of award
1.	Kartik Bhushan	Total productive maintenance on transmission failure of HEMM used in open cast mines	Principal Supervisor	10 th Mar,2025
2.	Partha Sarathi Ghosh	An experimental study of the weldability and mechanical characteristics combining predictive modelling of the temperature field and thermal stress distributions for laser welding of dissimilar materials	Principal Supervisor	1st Jan., 2025
3.	Soumen Paul	A review on the impact of high temperature treatment on the physico-mechanical, Dynamic, and Thermal properties of Granite	Principal Supervisor	1st July,2024
4.	Md.Obaidulla Ansari	Production enhancement by detection of slag entering the ladle shroud at the end of a ladle during casting.	Principal Supervisor	2 nd Feb.,2024
5.	Piush Raj	Investigation of sandstone erosion by Pulsating Water Jet and Continuous Water jet	Principal Supervisor	30 th Jan,2023
6.	Mohd Siddiqui	Performance Evaluation of Heavy Mining Equipment of Subterranean Mines	Principal Supervisor	30 th Jan,2023
7.	Varun Tripathi	Productivity enhancement using shop floor management approaches for mining machinery manufacturing in industry 4.0	Co-Supervisor	23 rd Sept.,2022
8.	Rajeshwari Chatterjee	Characterization of Bioethanol from Biomass for Green Environment	Co-Supervisor	23 rd Sept.,2022
9.	Bhabani Bora	Experimental Investigation and Parametric Optimization of Friction Stir Welding Process on Different Alloys	Principal Supervisor	5 th Sept.,2022
10.	Sachindra Shankar (Full Time)	Friction Stir Welding of dissimilar aluminium copper materials with different thicknesses	Principal Supervisor	25 th July,2022

Patents

2017

Published a patent on “Friction Stir Welding Joint Sample machining method apparatus and method”, Application No. – TEMPE-1/4170/2017-KOL, Patent application Number: PSD/PAT/1127, Title : Development of Umbrella-like deployable reflector antenna via 3D printing

11.	Gowri Shankar Wuriti	Investigations into structural integrity assessment of M250 Maraging steel pressure vessels by using acoustic emission signals	Principal Supervisor	27th June,2022
12.	Ved Prakash	Processing of Exotic Materials by Micro-Electrical Discharge Machining	Co-Supervisor	8th April,2022
13.	Kamlesh Paswan (Full Time)	Effect of oxide powder mixed dielectric on surface integrity and machining performance of Aluminium MMC using EDM Process	Principal Supervisor	8th April,2022
14.	Anil Agarwal (Full time)	Investigations into terotechnology aspects of tunnel boring machine in mixed rock conditions	Principal Supervisor	25th Jan,2022
15.	Rupam Tripathi (Full Time)	Performance analysis of abrasive water jet machining on the basis of acoustic emission, vibrations and its characterization	Principal Supervisor	18th Sept,2021
16.	Shailesh Kumar Singh	Tribological behavior chromium nitride coating deposited by Physical Vapour deposition	Principal Supervisor	18th Sept,2021
17.	Pankaj Sharma	Analysis of weld joint of weld able magnesium alloy (AZ31B) using Metal Inert Gas Welding (MIG)	Principal Supervisor	21st June,2021
18.	Md.Zishanur Rahaman (Full Time)	Machinability study of hard to machine materials through micro-electro-chemical machining process	Co-Supervisor	7th June,2021
19.	Madhulika (Full Time) Srivastava	Ultrasonically generated pulsed water jet peening of austenitic stainless-steel surfaces	Principal Supervisor	15th Mar,2021
20.	Rajeev Kumar	Critical Investigation into the weldability of Super Duplex Stainless Steel using Variants of Gas Tungsten Arc Welding	Principal Supervisor	17th Dec.2020
21.	Md.Shariq (Full Time)	Synthesis and formulation of gold nanoparticle-based inks and its application in additive manufacturing	Co-Supervisor	17th Dec.2020
22.	Uday Kumar (Full Time)	Experimental and numerical investigation of temperature field of laser welded joints and analysis of mechanical properties at different annealing temperatures	Principal Supervisor	11thNov.2020
23.	Deepak Kumar Gope (Full Time)	Experimental investigation into the weldability of similar and dissimilar GTAW joint of different aerospace materials.	Principal Supervisor	20th Jun,2020
24.	Ravi Kumar	Characterization of friction-surfaced coatings produced by an AISI 316 consumable rod on a high-speed- steel substrate	Solo Supervisor	4th Apr, 2018
25.	Gagan Gupta	Critical Reliability and Failure Analysis of Superheater Tubes of Coal-Based Boiler	Solo Supervisor	26th Feb.,2018
26.	Ratnesh Kumar (Full Time)	Experimental Investigation of Thermomechanical characteristics of Friction Stir Welded joints	Solo Supervisor	14th Jan.2017
27.	Saurabh Dewangan (Full Time)	Investigation into the performance of conical coal cutting picks	Solo Supervisor	21st Sep.2015
28.	Aniruddha Ghosh	Some investigations of the yield parameters of submerged arc welding process	Co-Supervisor	13th Aug. 2013
29.	Sanjeev Kumar	Developing green supply chain system for Indian small and medium enterprises	Solo Supervisor	7th Dec.2012
30.	Bishwaraj Dash	Assessment of TBM for Hard Rock Tunneling with Geological Uncertainties	Principal Supervisor	Thesis submitted in Feb.,2025
31.	Ankita Mistri (Full time)	Friction stir welding in aluminium and steel.	Principal Supervisor	3 rd Year
32.	Jaya Kori (Part time)	Development of inflatable antenna for aerospace application with the aid of 3D printing	Principal Supervisor	3 rd Year
33.	Abhishek Kumar	Machine Vibration of HEMM Operator and Ergonomics Assessment	Principal Supervisor	2 nd Year

34.	Biswaraj Dash (Full time)	Optimum disc cutter design for Hard Rock TBM Tunnelling	Principal Supervisor	5 th Year
35.	Sagar Kumar Murmu (Part time)	Investigation of micro-structural and mechanical properties of High temperature application material welded by Submerge Arc Welding.	Principal Supervisor	2 nd Year
36.	Pawan Prakash (Full time)	Critical assessment of EDM Process	Co-Supervisor	2 nd Year
37.	Gautam Krar	Process Planning of FSW	Principal Supervisor	4 th Year
38.	Malovan Vasudevan	Digital Twinning of Ballistic Missiles	Principal Supervisor	1 st Year
39.	Manish Upreiti	Die Sinking EDM	Principal Supervisor	1 st Year
40.	Vinod	Die sinking EDM	Principal Supervisor	1 st Year
41.	Purushottam at BIT Mesra	Yield parameters of Laser Beam Machining	Co Supervisor	1 st Year
42.	Shamik Ghosh	Process control parameters of FSW	Principal Supervisor	1 st Year
43.	Venkateshwara Rao	Aging of Maraging Steel	Principal Supervisor	1 st Year
44.	Debajyoti Mukherjee	Digital Twin of different defence equipment	Principal Supervisor	1 st Year
45.	Sourav Mandal	Internet of Things	Principal Supervisor	1 st Year

Book and Journal Publications:

Books Published

2021

Advances in Manufacturing Engineering and Materials

Proceedings of the International Conference on Manufacturing Engineering and Materials (ICMEM 2021), June, 2021, Nový Smokovec, Slovakia,

Editors: Hloch, S., Klichová, F., Pude, D., Krolczyk, G.M., Chattopadhyaya, S., (Eds.) – Indexed in WoS

2019

A book chapter is written entitled “Designing and analysis of the femoral neck for an artificial hip joint prosthesis”, DOI: 10.1016/B978-0-08-102174-3.00002-4, In book: Mechanical Behaviour of Biomaterials, [Luke Hocking](#), [A. Pramanik](#), [A.K. Basak](#), Somnath Chattopadhyaya

2018

Advances in Manufacturing Engineering and Materials

Proceedings of the International Conference on Manufacturing Engineering and Materials (ICMEM 2018), 18–22 June, 2018, Nový Smokovec, Slovakia,

Editors: Hloch, S., Klichová, D., Krolczyk, G.M., Chattopadhyaya, S., Ruppenthalová, L. (Eds.) – Indexed in WoS

2015

1. Hydro Abrasive Cutting – a surface structure study

Authors

Sergej Hloch, Peter Monka – Slovakia

Grzegorz Krolczyk – Poland

Drazan Kozak, Ivan Samardzic, Antun Stoic – Croatia

Aleksandar Sedmark – Serbia

Somnath Chattopadhyaya – India

Publisher – Victoria Publishing House, May, 2015.

3. “Numerical Analysis of Heat and Mass Transfer in Porous Media” – a Chapter entitled “Assessment of Heat Affected Zone of Submerged Arc Welding Process through Digital Image Processing” – A.Ghosh, Somnath Chattopadhyaya, N.K.Singh (Springer-Verlag), September 2012, “[Numerical analysis of heat and mass transfer in porous media](#)”, [Advanced Structured Materials](#), 2012, Volume 27, 209-228, DOI: 10.1007/978-3-642-30532-0_8, pp. 209-228.

4. Member of the International Advisory Board of iJET (int. J. of Engg. And Technology) Scientific Journal ISSN 1338-2357 (Slovakia)-2011

Member of the Editorial Board of an Int. J. of Manufacturing and Industrial Engineering, Published from Eastern Europe 2011.

Co-Chair of the Conference on J.of Engg. And Technology at Poprad, Slovakia, held during 21-26th June, 2011.

PhD Thesis Guided: 29(awarded), 1 submitted

Int. Journal (SCIE): 126

Citation Profile

Citation System	Total Citations	h index	i ¹⁰ Index	No. articles cited	g index	M Quotient	Reads	Articles (till date in the database)
Google Scholar	5666	40	134		62	0.95		327
Research Gate	3304	36	12				100,939	135
SCOPUS	2997	35	101	2276	46	1.214	25,000	244
WoS SCIE(Core)	2303	29	53	1808	46	2.000		125

Reviews: 191 as per Publons database

Books published

Experimental Investigation and Parametric Optimization of Friction Stir Welding ON Aluminium Alloy 6061-T6, Editors - Bhabani Bora, Somnath Chattopadhyaya, Shubham Sharma, and Huseyin Cagan Kilinc, FEB.2022, ISBN: 978-1-68507-674-0, Published by Nova Science Publishers, Inc. † New York, <https://doi.org/10.52305/IKKF9948>.

Life member of Institute of Metals, Membership No: 61938, Membership Category: LIFE MEMBER (LM01), Date of Enrollment: 07-01-2025, Associated Chapter: JAMSHEDPUR (IMJO1)

Book Chapters Published

1	Book Chapter published entitled “ Designing and analysis of the femoral neck for an artificial hip joint prosthesis”, Luke Hocking ¹ , A. Pramanik, A. K. Basak, S. Chattopadhyaya, Available online 21 June 2019,DOI: https://doi.org/10.1016/B978-0-08-102174-3.00002-4 .	Listed in SCOPUS
2	Unraveling the Role of Graphene Nanosheets in Electric Discharge Machining, Kamlesh Paswan, Somnath Chattopadhyaya and Anil Dube, FROM THE EDITED VOLUME Advances in Nanosheets ,Karthikeyan Krishnamoorthy, https://www.intechopen.com/online-first/1133888 , DOI: 10.5772/intechopen.1001608, Published: June 28th, 2023	
3	Book Chapter published entitled “Stress in the interfaces of metal matrix composites (MMCs) in thermal and tensile loading 455”, A. Pramanik, A.K. Basak, G. Littlefair, A.R. Dixit and S. Chattopadhyaya, Woodhouse Publications, Elsevier.	
4	Book Chapter published entitled “An Analysis on the Advanced Research in Additive Manufacturing”, Gautam Chandra Karar, Ratnesh Kumar, and Somnath Chattopadhyaya, © Springer Nature Singapore Pte Ltd. 2021, P. M. Pandey et al. (eds.), <i>Advances in Production and Industrial Engineering</i> , Lecture Notes in Mechanical Engineering, https://doi.org/10.1007/978-981-15-5519-0_1	

List of Publications (WoS Proceedings)

Sl. No.	Publications	Category
1	Potential of using water jet peening as a surface treatment process for welded joints By: Srivastava, M (Srivastava, Madhulika); Tripathi, R (Tripathi, Rupam); Hloch, S (Hloch, Sergej) ; Chattopadhyaya, S (Chattopadhyaya, Somnath); Dixit, AR (Dixit, Amit Rai) INTERNATIONAL CONFERENCE ON MANUFACTURING ENGINEERING AND MATERIALS, ICMEM 2016 Vol.149,Pages: 472-480, DOI: 10.1016/j.proeng.2016.06.694, Published: 2016, Document Type: Proceedings Paper,	WoS Proceeding
2	Discussion on Wear Phenomena in Cemented Carbide By: Nahak, S ; Dewangan, S ; Chattopadhyaya, S , GLOBAL CHALLENGES, POLICY FRAMEWORK & SUSTAINABLE DEVELOPMENT FOR MINING OF MINERAL AND FOSSIL ENERGY RESOURCES (GCPF2015), Vol.11, Pages: 284-293,DOI: 10.1016/j.proeps.2015.06.063, 2015, Document Type: Proceedings Paper, Conference: Global Challenges, Policy Framework & Sustainable Development for Mining of Mineral and Fossil Energy Resources (GCPF),Location: Mangalore, INDIA, Date: APR 17-18, 2015	WoS Proceeding
3	Prediction of Submerged Arc Welding Yield Parameters through Graphical Technique By: Ghosh, A (Ghosh, Aniruddha); Chattopadhyaya, S ; Das, RK ; Sarkar, PK (Sarkar, P. K.) 11TH INTERNATIONAL CONFERENCE ON THE MECHANICAL BEHAVIOR OF MATERIALS (ICM11), Volume: 10,DOI: 10.1016/j.proeng.2011.04.465 Published: 2011,Document Type: Proceedings Paper, Conference: 11th International Conference on the Mechanical Behavior of Materials (ICM),Location: Como, ITALY,Date: 2011	WoS Proceeding
4	MICROSTRUCTURAL STUDY OF FAILURE PHENOMENA IN WC 94%-CO 6% HARD METAL ALLOY TIPS OF RADIAL PICKS, Nahak, S (Nahak, Sakuntala); Chattopadhyaya, S (Chattopadhyaya, Somnath); Dewangan, S (Dewangan, Saurabh); Hloch, S (Hloch, Sergej); Krolczyk, G (Krolczyk, Grzegorz); Legutko, S , ADVANCES IN SCIENCE AND TECHNOLOGY-RESEARCH JOURNAL Vol.11,Issue: 1,Pages: 36-47, DOI: 10.12913/22998624/68457, Published: MAR 2017,Document Type: Article	WoS Journal
5	Monitoring of acoustic emission during the disintegration of rock By: Tripathi, R (Tripathi, Rupam)[1] ; Srivastava, M (Srivastava, Madhulika)[1] ; Hloch, S (Hloch, Sergej)[2] ; Adamcik, P (Adamcik, Pavel); Chattopadhyaya, S (Chattopadhyaya, Somnath)[1] ; Das, AK (Das, Alok Kumar)[1] INTERNATIONAL CONFERENCE ON MANUFACTURING ENGINEERING AND MATERIALS, ICMEM 2016, Volume: 149,Pages: 481-488,DOI: 10.1016/j.proeng.2016.06.695,Published: 2016,Document Type: Proceedings Paper,Conference: International Conference on Manufacturing Engineering and Materials (ICMEM),Location: Novy Smokovec, SLOVAKIA,Date: JUN 06-10, 2016	WoS Proceeding
6	Assessment of Heat Affected Zone of Submerged Arc Welding Process through Digital Image Processing By: Ghosh, A (Ghosh, Aniruddha)[1] ; Chattopadhyaya, S ; Das, RK (Das, R. K.)([2] ; Sarkar, PK (Sarkar, P. K.)([2] 11TH INTERNATIONAL CONFERENCE ON THE MECHANICAL BEHAVIOR OF MATERIALS (ICM11), Volume: 10,DOI: 10.1016/j.proeng.2011.04.462 Published: 2011,Document Type: Proceedings Paper, Conference: 11th International Conference on the Mechanical Behavior of Materials (ICM),Location: Como, ITALY,Date: 2011	WoS Proceeding
7	Effect of Heat input on Submerged Arc Welded Plates, By: Ghosh, A ; Chattopadhyaya, S ; Das, RK ,	WoS

	11TH INT.CONFERENCE ON THE MECHANICAL BEHAVIOR OF MATERIALS (ICM11), Vol.10,DOI: 10.1016/j.proeng.2011.04.464, Published: 2011,Document Type:Proceedings Paper,Conference: 11th Int.Conference on the Mechanical Behavior of Materials (ICM),Location: Como, ITALY,Date: 2011	Proceeding
8	3rd Degree Mathematical Model Appropriate for Parametric Estimation of SAW process By: Ghosh, A ; Singh, NK ; Chattopadhyaya, S , MATERIALS AND DESIGN, PTS 1-3, Edited by: Sang, XM ; Wang, PC ; Ai, L ; Li, YG ; Bu, JL , Book Series: Advanced Materials Research Vol. 284-286,Pages: 2473-+,Part: 1-3, DOI: 10.4028/www.scientific.net/AMR.284-286.2473 Published: 2011,Document Type:Proceedings Paper,Conference: International Conference on Advanced Engineering Materials and Technology (AEMT2011),Location: Sanya, PEOPLES R CHINA,Date: JUL 29-31, 2011	WoS Proceeding
9	Prediction of HAZ Width of Submerged Arc Welded Plates By: Ghosh, A ; Chattopadhyaya, S , MATERIALS AND DESIGN, PTS 1-3, Edited by: Sang, XM ; Wang, PC ; Ai, L ; Li, YG ; Bu, JL , Vol.: 284-286, Pages: 2481-+,Part: 1-3, DOI: 10.4028/www.scientific.net/AMR.284-286.2481, Published: 2011,Document Type:Proceedings Paper, Conference: International Conference on Advanced Engineering Materials and Technology (AEMT2011),Location: Sanya, PEOPLES R CHINA,Date: JUL 29-31, 2011	WoS Proceeding
10	Critical Analysis of Confounded Parameters of SAW Process By: Ghosh, A (Ghosh, Aniruddha)[1] ; Chattopadhyaya, S (Chattopadhyaya, Somnath)[2] ; Sarkar, PK , 11TH INTERNATIONAL CONFERENCE ON THE MECHANICAL BEHAVIOR OF MATERIALS (ICM11),Vol.10, DOI: 10.1016/j.proeng.2011.04.463,Published: 2011 Document Type:Proceedings Paper,Conference: 11th International Conference on the Mechanical Behavior of Materials (ICM),Location: Como, ITALY,Date: 2011	WoS Proceeding
11	Surface Roughness of Graphite and Aluminium Alloy After Hydro-abrasive Machining Carach, J ; Lehocka, D ; Legutko, S slaw[3] ; Hloch, S ; Chattopadhyaya, S ; Dixit, AR , ADVANCES IN MANUFACTURING (MANUFACTURING 2017), Edited by: Hamrol, A ; Ciszak, O ; Legutko, S ; Jurczyk, M , Book Series: Lecture Notes in Mechanical Engineering, Pages: 805-813,DOI: 10.1007/978-3-319-68619-6_78, Published: 2018,Document Type:Proceedings Paper, Conference, Conference: 5th International Scientific-Technical Conference, (MANUFACTURING),Location: Poznan, POLAND,Date: OCT 24-26, 2017	WoS Proceeding
12	Characterization of Failure Behavior in Distorted WC-Co Tip of Coal Mining Picks Nahak, S ; Dewangan, S ; Chattopadhyaya, S ; Hloch, S , J. OF FAILURE ANALYSIS AND PREVENTION, Vol. 17, Issue: 1,Pages: 136-143,DOI: 10.1007/s11668-016-0220-0, Published: FEB 2017.	WoS Journal
13	Investigation Into Coal Cutting Operation by Using Conical Pick of Cast Iron with LH710 Coated Tip Dewangan, S ; Chattopadhyaya, S ; Hloch, S , DYNAMICS OF MACHINES AND MECHANISMS, INDUSTRIAL RESEARCH, Vol.592-594,Pages: 426-+,DOI: 10.4028/www.scientific.net/AMM.592-594.426, Published: 2014,Document Type:Proceedings Paper,Conference, Conference: 16th International Mechanical Engineering Congress (IMEC),Location: Tamil Nadu, INDIA,Date: JUN 13-15, 2014,	WoS Proceeding
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15	Prediction of weld parameters in Gas Metal Arc Welding Process using curve fitting techniques and graphical methods, Mukhopadhyay, P ; Chattopadhyaya, S ; Bhatia, S ; Singh, NK ; Mukhopadhyay, AK , ADVANCES IN MATERIALS AND MATERIALS PROCESSING, PTS 1-3, Edited by: Jiang, ZY ; Liu, XH ; Jiao, SH ; Han, JT , Book Series: Advanced Materials Research, Volume: 652-654, Pages: 2352-+,DOI: 10.4028/www.scientific.net/AMR.652-654.2352, Published: 2013,Document Type:Proceedings Paper,Conference: 3rd International Conference on Advances in Materials Manufacturing (ICAMMP 2012), Location: Beihai, PEOPLES R CHINA,Date: DEC 22-23, 2012	WoS Proceeding
16	Prediction of Weld Bead Parameters, Transient Temperature Distribution& HAZ width of Submerged Arc Welded Structural Steel Plates, Ghosh, A ; Chattopadhyaya, S ; Singh, NK , DIFFUSION IN SOLIDS AND LIQUIDS VII, Edited by: Ochsner, A ; Murch, GE ; Shokuhfar, A ; Delgado, JMPQ , Book Series: Defect and Diffusion Forum, Vol.326-328,Pages: 405-+, DOI: 10.4028/www.scientific.net/DDF.326-328.405, Published: 2012,Document Type: Proceedings Paper,Conference: 7th International Conference on Diffusion in Solids and Liquids (DSL 2011),Location: Algarve, PORTUGAL, Date: JUN 26-30, 2011	WoS Proceeding
17	Prediction of Temperature Distribution on Submerged Arc Welded Plates through Gaussian Heat Distribution Technique, Ghosh, A ; Chattopadhyaya, S , MATERIALS AND DESIGN, PTS 1-3, Vol.284-286, Pages: 2477-+,Part: 1-3, DOI: 10.4028/www.scientific.net/AMR.284-286.2477, Published: 2011,Document Type:Proceedings Paper, Conference: International Conference on Advanced Engineering Materials and	WoS Proceeding

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18	Feasibility Study of Friction Surfaced Coatings over Non-Ferrous Substrates By: Shariq, M ; Srivastava, M ; Tripathi, R ; Chattopadhyaya, S ; Dixit, AR , INT. CONFERENCE ON MANUFACTURING ENGINEERING AND MATERIALS, ICMEM 2016, Edited by: Hloch, S ; Krolczyk, G , Vol.: 149, Pages: 465-471, DOI: 10.1016/j.proeng.2016.06.693,Published: 2016,Document Type:Proceedings Paper, Conference: International Conference on Manufacturing Engineering and Materials (ICMEM),Location: Novy Smokovec, SLOVAKIA,Date: JUN 06-10, 2016	WoS Proceeding
19	Influence of Welding Current on Bead Shape, Mechanical and Structural Property of Tungsten Inert Gas Welded Stainless Steel Plate, Kumar, R ; Chattopadhyaya, S ; Kumar, S , MATERIALS TODAY- PROCEEDINGS, Vol.2,Issue: 4-5,Pages: 3342-3349,DOI: 10.1016/j.matpr.2015.07.307, Published: 2015,Document Type: Proceedings Paper, Conference: 4th International Conference on Materials Processing and Characterization (ICMPC),Location: Gokaraju Rangaraju Inst Engin & Technol, Hyderabad, INDIA, Date: MAR 14, 2015	WoS Proceeding
20	Investigation Into Coal Fragmentation Analysis by Using Conical Pick By: Dewangan, S ; Chattopadhyaya, S ; Hloch, S , INT. CONFERENCE ON ADVANCES IN MANUFACTURING AND MATERIALS ENGINEERING (ICAMME 2014), Vol. 5, Pages: 2411- 2417,DOI: 10.1016/j.mspro.2014.07.486, Published: 2014, Document Type:Proceedings Paper,Conference: International Conference on Advances in Manufacturing and Materials Engineering (ICAMME),Location: Mangalore, INDIA,Date: MAR 27-29, 2014	WoS Proceeding
21	Sustainable Supply Chain Management: A Case Study From Indian Automotive Industry By: Kumar, S (Kumar, Sanjeev)[1] ; Chattopadhyaya, S (Chattopadhyaya, Somnath)[2] ; Sharma, V , ADVANCED MANUFACTURING TECHNOLOGY, PTS 1-4, Book Author(s): Jiang, ZY (Jiang, ZY), Vol.: 472-475,Pages: 3359-+,DOI: 10.4028/www.scientific.net/AMR.472-475.3359 Published: 2012,Document Type: Proceedings Paper, Conference: 3rd International Conference on Manufacturing Science and Engineering (ICMSE 2012),Location: Xiamen, PEOPLES R CHINA, Date: MAR 27-29, 2012	WoS Proceeding
22	Assessment of Heat Affected Zone of Submerged Arc Welding Process through Digital Image Processing By: Ghosh, A ; Chattopadhyaya, S ; Singh, NK (Singh, N. K.)[2], DIFFUSION IN SOLIDS AND LIQUIDS VII,Edited by: Ochsner, A ; Murch, GE ; Shokuhfar, A ; Delgado, JMPQ , Book Series: Defect and Diffusion Forum, Vol.326-328,Pages: 400-+, DOI: 10.4028/www.scientific.net/DDF.326-328.400, Published: 2012, Proceedings Paper, Conference: 7th International Conference on Diffusion in Solids and Liquids (DSL 2011),Location: Algarve, PORTUGAL,Date: JUN 26-30, 2011	WoS Proceeding
23	Prediction of Heat Distribution Shape and Nozzle Diameter of Plasma Arc Cutter Ghosh, A ; Bhatia, S ; Chattopadhyaya, S , MATERIALS AND DESIGN, PTS 1-3 Book Series: Advanced Materials Research, Vol.284-286,Pages: 2465-+,Part: 1- 3,DOI: 10.4028/www.scientific.net/AMR.284-286.2465, Published: 2011, Document Type:Proceedings Paper,Conference: International Conference on Advanced Engineering Materials and Technology (AEMT2011), Location: Sanya, PEOPLES R CHINA,Date: JUL 29-31, 2011	WoS Proceeding
24	Analysis of the influence of the heat input and bead volume on HAZ Hardness for Submerged Arc Welding Process of Mild steel plates, Ghosh, A ; Chattopadhyaya, S ; Mukherjee, S , MATERIALS AND DESIGN, PTS 1-3, Edited by: Sang, XM ; Wang, PC ; Ai, L ; Li, YG ; Bu, JL , Book Series: Advanced Materials Research, Vol. 284-286,Pages: 2469-+,Part: 1-3,DOI: 10.4028/www.scientific.net/AMR.284- 286.2469,Published: 2011,Document Type:Proceedings Paper, Conference: International Conference on Advanced Engineering Materials and Technology (AEMT2011)Location: Sanya, PEOPLES R CHINA, Date: JUL 29-31, 2011	WoS Proceeding
25	Material vibration as a source of information for AWJ control By: Perzel, V (Perzel, V.)[1] ; Hreha, P (Hreha, P.)[1] ; Hloch, S (Hloch, S.)[1] ; Valicek, J (Valicek, J.)[2] ; Tozan, H (Tozan, H.)[3] ; Nemcova, J (Nemcova, J.); Sharma, V (Sharma, V.); Chattopadhyaya, S (Chattopadhyaya, S.), VODNI PAPERSEK 2011: VYZKUM, VYVOJ, APLIKACE Edited by: Sitek, L ; Zelenak, M , Pages: 213-223,Published: 2011,Document Type:Proceedings Paper,Conference: 2nd Conference on Water Jetting Technology: Water Jet 2011 - Research, Development, Applications, Location: Ostravice, CZECH REPUBLIC,Date: OCT 03-05, 2011	WoS Proceeding
26	Degradation analysis of gear oil SAE 90 used in load haul dumper machine Nagesh Dewangan ¹ , Anil Kumar Agrawal ¹ , Mohd A H Siddiqui ² and Somnath Chattopadhyaya ¹ , Published under licence by IOP Publishing Ltd, IOP Conference Series: Materials Science and Engineering , Vol.624, Number 1	SCOPUS Journal

Int. Conference outside India

1. Aniruddha Ghosh, S. Chattopadhyaya “Optimum Solution of SAW Process” pp.171, proc. 7th International Conference on Optimization Techniques and Applications (ICOTA7), Kobe, Japan, December 12-15, 2007.
2. S. Chattopadhyaya “Object Oriented Manufacturing in a conveyor belt manufacturing unit” presented in an International conference at Dhaka, Bangladesh December, 2001.
3. Dr. Alok Varma, S. Chattopadhyaya, “ Eco-Friendly Manufacturing through Green Technologies”, Proceeding International Conference on Manufacturing, Feb. 2000, Dhaka, Bangladesh, PP. 684-690.
4. Dr. S. Kumar, S. Chattopadhyaya “Inflicting agility to tribal brassware technology”, pp. 506-510, Proc. International Conference on Manufacturing ICM 2002 at Dhaka, Bangladesh August 2002.
5. S. Chattopadhyaya, Dr. Alok Varma, Dr. A. K. Basu, “Information Technology requirements for Handling and flow of Materials in a manufacturing unit”, pp. 693-701, Proc. International Conference on Manufacturing ICM 2002 at Dhaka, Bangladesh, August 2002.
6. A. Ghosh, S. Chattopadhyaya, P. K. Sarkar, “Analysis of bead geometry of SAW process, Int. conference on Mechanical Engg., Dhaka”. 29-31, Dec, 2007.
7. Delivered a keynote address in an International Conference **ICMEM 2016** at Poprad Tatry, Slovakia during **June 2018**.

Chairing.

8. Delivered a keynote address entitled “Tunnel Boring Machine in Himalayan Region”, in an International Conference **ICMEM 2018** at Poprad Tatry, Slovakia during **18nd to 22nd June 2018**.

Chairing.

1. Chaired one technical session at the International Conference on Manufacturing ICM 2002, at Dhaka, Bangladesh, 2002.
2. Chaired one of the technical sessions of International Conference on advances in Mechanical Engineering, July 2010 at SVNIT Gujarat held in the month of July, 2011.
3. Chaired one of the technical sessions of National Seminar in Innovation & Creativity for Business Excellence at Indian School of Mines Dhanbad, held during 17-18 February, 2011.
4. Chaired one technical session in an International Conference **ICMEM 2014** at Poprad Tatry, Slovakia during **September, 2014**.
5. Chaired one technical session in an International Conference **ICMEM 2016** at Poprad Tatry, Slovakia during **June 2016**.
6. Chaired one technical session in an International Conference **ICMEM 2018** at Poprad Tatry, Slovakia during **18nd to 22nd June 2018**.

Reviewer of 188 journals as per Publons database.

List of EDP Courses: (Title, Amount, Date of the Course, Role (PI/Co-PI))

Sl. No.	Title	Amount	Date of the Course	Role
1	Short course on Mining Machineries for the Afghan Professionals from the Ministry of Mines, Afghanistan	31.46 Lacs	08 th September, 2013 – 23 rd September, 2013	Co-PI
2	Short course on Drills and Drilling for Mineral Resources for the Officers of Atomic Mineral Directorate for exploration and Research	4.00 Lacs	12-23 November, 2012	Co-PI
3	Hydraulics in HEMM	2.5 Lacs	May 25 to 29, 2009	Co-PI

Academic Interaction with outside Agencies

2017

1. Jt. Organizing Secretary Indian School of Mines Alumni Association from February, 2017.
2. Member of the Innovation Committee IIT (ISM).
3. Invited for giving a lecture on “Hybrid Additive Manufacturing” in a one day workshop of TEQIP-II at the department of Production Engineering, Jadavpur University on 9th March, 2017.
4. Examined a PhD thesis from GLA University, Mathura.

2016

- Fellow of Institution of Engineers (India) (F-1277487)
- External Examiner of PhD Scholar of KIIT University, Bhubaneswar and NIT – Rourkela, Jadavpur University.
- Faculty Member of the IIT (ISM) M.Tech Entrance Committee.

- Keynote speaker in an International Conference held during 6th – 10 June, 2016 at Poprad, Slovakia.
- Member of the International Relations and Alumni Affairs Group of IIT(ISM).

2015

Co-convener, Indian Mineral Congress 2015.

2014

1. Co-convener of Indian Mineral Congress 2014.
2. M.Tech Examiner of BIT Mesra.

2013

1. Delivered lecture at AALTO University Finland on DOE for Welding Process on October, 2013.
2. Faculty Coordinator of M.Tech Course - M.Tech (Mechanical Engineering with specialization in Manufacturing Engg.)
3. Dy. Faculty In Charge of ISM JRF Entrance Examination
4. Member of the Improvement Group of ISM Dhanbad.
5. Member of the BOCS of the Department of Management Studies.
6. Section Committee member of the Bihar and Jharkhand Chapter for 2012 – 2015 of Indian Society for Technical Education.
7. Co-convener of Indian Mineral Congress 2013.

2012

1. Convener of Basant 2012 (Annual Alumnus meet of Indian School of Mines Dhanbad).
2. Invited to deliver a Keynote address for one international conference at Slovakia in December, 2012.
3. Visiting faculty for course on Mechatronics at BIT Mesra for M.Tech students of the department of Applied Mechanics.
4. Delivered two Keynote addresses at Presov, Slovakia in an international conference on manufacturing and management during 5th – 7th December, 2012.
5. Chaired a technical session in an international conference on manufacturing and management during 5th – 7th December, 2012.

2011

1. Convener of Basant 2011 (Annual Alumnus meet of Indian School of Mines Dhanbad).
2. Co- Chair of an International Conference at Slovakia, Europe.

2010

1. External Examiner of a PhD thesis of a scholar of Jadavpur University.
2. Delivered two Keynote addresses in back-to-back sessions at Presov, Slovakia in an international conference on manufacturing and management during 25th -26th November, 2010.
3. Co-Convener of the national seminar on “Drills, Drilling - An update, DD&DU-2010” held during 23rd - 24th September, 2010 at the dept. of ME & MME, ISM Dhanbad.
4. Chaired one of the technical sessions of the National conference on Recent Advances in Manufacturing-2010 held at SVNIT Surat in July, 2010.

2009

5. Co – Coordinator of the five days Short Term Course on Hydraulics in HEMM’ (From 25th May to 29th May, 2009).

2008

6. Co – Coordinator of the five days Short Term Course on Hydraulics in Mining and Construction Equipment (June 09-13, 2008).
7. Invited for Lecture for the annual technical conference of TATA Rayarson on the topic of Le-agile Manufacturing.
8. Co-Convener – National Seminar on Crushing Screening & Conveying Sep.2008.

2002

9. Jt. Organizing secretary, 20th AIMTDR conference at BIT Mesra, 2002.
10. Invited for Lecture for UGC Refresher Course in the department of Production Engineering, NIT, and Jamshedpur for two occasions.
11. Invited for Lecture in Entrepreneurship development program for the ancillary Auto parts manufacturing industries organized by State Bank of India, Jamshedpur main branch.
12. Invited as an External Examiner for M.E Viva in the Department of Mechanical Engineering, Jadavpur University in one occasion.
13. Joint Organizing Secretary of the Indian Institute of Production Engineers, Jharkhand state chapter.
14. Executive Committee member of the Institution of Engineers (India) Dhanbad, Local center.
15. Section Committee member of Indian Society for Technical Education, Bihar Jharkhand chapter.

16. Presented technical papers in foreign countries in five occasions.

17. Life Member of Institute for Smart Structures and Systems (ISSS)

18. Physical Standards: Height: 5ft 8.5” Weight: 87 kg Chest: 40” Eyesight: Normal with Glasses

19. Extra Curricular Activities:

A. Debate: Winners of Inter-school Debate Competition

B. Mathematics: Stood 4th in the State of West Bengal in 1985 Mathematics Olympiad, represented the state

C. Sports: Lawn Tennis (Under Twelve Champion in Shyambazar Tennis Club)

D. Table Tennis: Champion, BIT-Mesra, 2000.

E. Secretary – ISM Teachers Association for two years for two occasions

F. Ex. General Secretary Scolomin Club

20. Administrative Work

A. Associate Dean (Innovations and Incubations) from 21st May, 2018 for 13 months.

B. Warden of a Hostel for two years

C. Member of the Improvement group of the IIT(ISM)

D. Course Coordinator of B.Tech final year Mechanical Engg. students

22. Patent Applied: In the domain of Friction Stir Surfacing.

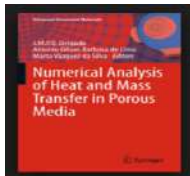
23. References: a) Dr. Bijon Sarkar, Professor, Department of Production Engineering, Jadavpur University, Kolkata, 700032, +91-033-2414-6153(o), +91-033-2414-6907(o),

b) Dr. Jyotirmoy Saha, Professor, Department of Production Engineering, Jadavpur University, Kolkata, 700032, +91-033-2414-6153(o),

Dated: Thursday, April 03, 2025

Signature:

(Somnath Chattopadhyaya)





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Lecture Notes in Mechanical Engineering



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Reports on cutting-edge research on (un)conventional manufacturing