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Academic Background

Ph.D. : Drexel University, USA, 1994.
MS: University of Texas at El Paso, USA, 1991.
B.E.: Jadvpur University, India, 1987.

Research Interests

Crystallographic Texture
Microstructural Engineering
Thermomechanical Processing

Patents

1. "A Randomized Grain Boundary Austenitic Stainless Steel and a Process Thereof"; Application no. 1090/MUM/2002 dt 6-12-02. (Names: V. Kain, P.K. Dey, D.N. Wasnik and I. Samajdar). – *Indian Patent*
2. "Development of a very high resistance to sensitization in austenitic stainless steel through special heat treatment resulting in grain boundary structure modification"; Application no. 893/MUM/2008 dt 21-April-08. (Names: R.K. Dayal, Parvathanandini, Baldev Raj, S. Mulke and I. Samajdar).– *Indian and US Patent.*

Awards & Recognitions

1. H.H. Mathur Award of Research Excellence, IIT Bombay, 2016.
2. Institute Chair Professor (2014-2017, 2017-2020), Prof. TRR Mohan Chair Prof. (2021-Cont.).
3. Adjunct Professor: Monash University.
3. Fellow of INAE (Indian National Academy of Engineers) and EMSI (Electron Microscopy Society of India).
4. Metallurgist of the year: IIM-NMD (Indian Institute of Metals – National Metallurgist Day), 2011.
5. MRSI (Materials Research Society of India) Medal Lecture

Publications:

1 Text Book
219 Papers in International Peer Reviewed Journals

Major Sponsored Research Projects (ongoing & recently completed)

- Tata Steel (Reduction of Iron Ore) – 50 Lakhs. Ongoing. As PI.
- Tata Steel + SERB-IRRD (Hole Expansion Ratio in Dual Phase Steel) – 1 crore. Ongoing. As PI.
- Tata Steel + JSW (Residual Stresses in Hot Rolling): 70 lakhs. Ongoing. As PI.
- DRDO (Bulb Bar Rolling) – 70 lakhs. Ongoing. As Co-PI.
- AUSC-Igcar/DHI (Texture/Microtexture Analysis) - 5 Crore. Recently completed. As PI. SERB (Microstructural Origin of Residual Stresses) - 64 lakhs. Recently completed. As PI.
- Tata Steel (CRGO hot working) - 50 lakhs. Recently completed. As PI.
- Sandvik Materials Technology, Sweden (Duplex Stainless Steel) - 50 lakhs. Recently completed. As PI.

Projects below 50 lakhs are not mentioned.

PhD Students (Completed-28)

Name	Completion	Status	Research Topic
D.N. Wasnik	2003	Petro-Chem, Middle East	Grain Boundary Nature and Localized Corrosion
M. Kiran Kumar	2005	Scientist, BARC	Cold Deformed Zr Alloys
C. Vanitha	2006	Professor, NITW	Hot Working & Recrystallization behaviour in Zr
R.L. Khandagle*	2006	Professor, Vishwakarma-Pune	Welding of Super Duplex Stainless Steel
S. Mishra	2008	Professor, IITB-Mech.	Formability & crystallographic texture
S. Majumdar	2008	Scientist, BARC	High Temperature Refractory Metals
S.K. Sahoo	2009	Associate Professor, NITR	Heterogeneous Deformation in Zr
L. Aditya*	2009	Scientist, CAT-Indore	Ferrite Thin Films: Texture and Residual Stress
S. Ravindran	2009	Scientist, Sandvik - Sweden	Cube Stability in Aluminum
V. Hiwarkar	2009	Assistant Professor, DIAT-Pune	Recovery and Recrystallization in Zr Alloys
P. Ahmedabadi	2012	Scientist, BARC	Radiation Damage in Austenitic Stainless Steel
R. Khatirkar	2011	Associate Professor, VNIT	Strain Localizations in Low Carbon Steel
Satish Shekhawat	2014	Scientist, National Power Grid	Stresses in Electrical Steel
Ajay Revelly	2015	Assistant Professor, RGKUT	Radiation Damage in Zr
Raj*	2014	Assistant Professor, Karnataka	Formability in low carbon steels
Jaiveer*	2015	Assistant Professor, IIT Jodhpur.	Deformation of Zr
Abhishek Tripathi	2016	Assistant Professor, NIT Jaipur.	FSP of Mg
Srinivasan	2017	Assistant Professor, VIT	Plastic Deformation and Corrosion
Gulshan	2017	Assistant Professor, BITS-Dubai	Residual Stresses in Zr
Venkatesh	2017	Scientist, ARCI	Microstructure developments during laser processing
A. Durgaprasad	2018	Scientist, Tata Steel R&D	Microstructure Engineering of Pearlite
L. Jain*	2018	His own start-up in US	CVD Diamond
Anoop C.R.	2018	Scientist, ISRO	Maraging Stainless Steel
Arijit Lodh	2018	Post Doc in UK	Microstructural Origin of Residual Stress
Tenneti Sharma*[+]	2019	Indian Navy	Embrittlement in Reactor Pressure Vessel Steels
Niraj*	2020	Scientist, ISRO	Anisotropy in Al-Li alloys
Sushil Giri	2020	Scientist, Tata Steel R&D	CRGO Hot Working
Riya Mondal	2020	Scientist, SaarLoha R&D	Duplex Stainless Steel

*co-supervisor

[+]Cdr in Indian Navy, completed PhD at HBNI: Supervisor V. Kain, I. Samajdar is Co-Supervisor

PhD Students (Ongoing: 15)

Name	Period	Status	Research Topic
Khushahal	2015-Cont.	Continuing	Deformed Microstructure of Zr
Hitesh*	2015-Cont.	Continuing (pre-synopsis)	Tropical Steel: Focus Oxidation
Irsad*	2015-Cont.	Continuing (pre-synopsis)	Tropical Steel: Focus Aqueous Corrosion
Ujjal Tewari	2016-Cont.	Continuing (John Deere)	Microstructures of Cast Iron
Tawqeer*	2015-Cont.	Continuing	Polycrystalline Dislocation Dynamics
Aditya Prakash	2015-Cont.	Continuing	Microstructure and Ductility in aluminum
Ashish*	2016-Cont.	Continuing	Niobium Microstructure
Soudip*	2018-Cont.	Continuing	Hole Expansion in DP Steel
Sanjay	2018-Cont.	Continuing	Internal Friction
Saurabh	2018-Cont.	Continuing	Hot Working of Steel
Patil	2020-Cont.	Continuing	Plastic Deformation of Maraging Stainless Steel
Namit	2020-Cont.	Continuing	Orientation Gradients in Metallic Materials
Saurabh Kamble	2021-Cont.	Continuing	Reduction of Iron Ore
Abhishek*$^{+}$	2019-Cont.	Continuing	Sensitization in Additive Manufactured SS
Akhil G Nair*$^{++}$	2019-Cont.	Continuing	Boron Segregation in Steel

*co-supervisor

$^{+}$Enrolled for PhD at Monash, Sebastian is the supervisor, I am Co-Supervisor

$^{++}$Enrolled at HBNI, Dr, Arup Dasgupta (of Igcar) is the supervisor, I am Co-Supervisor

Post-Doctoral Fellows (IPDF):

1) Dr. Vivek Pancholi – Completed, Now Professor at IIT Roorkee
2) Dr. Devasree – Completed, Now Prof. at VIT
3) Dr. Arnab Sarkar – Ongoing – going for a post-doc to UBC
4) Dr. Sunil Kumar – Ongoing