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सोमजीत विश्वास (पीएच.डी.)

सह-प्राध्यापक, धातुकर्म एवं पदार्थ अभियांत्रिकी विभाग,
भारतीय प्रौद्योगिकी संस्थान, खड़गपुर-721302, पश्चिम बंगाल, भारत

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Associate Professor	MME, IIT Kharagpur	17-11-20 – till date
AvH Researcher	IMM, RWTH Aachen, Germany	04-05-22 – 31-07-22
Assistant Professor	MME, IIT Kharagpur	24-06-14 – 17-11-20
AvH Researcher	MagIC, Institut für Werkstofforschung, HZH, Germany	05-05-18 – 31-07-18
Visiting Professor	Mechanical Engg., University of Saskatchewan, Saskatoon, Canada	11-11-17 – 30-11-17
AvH PDF	Ruhr Universität Bochum, Germany	01-12-13 – 20-06-14
PDF	LabEX DAMAS & LEM3, Univ Lorraine, Metz, CNRS 7239 France	01-12-12 – 30-11-13
PDF	IMDEA Materials Madrid, Spain	13-01-11 – 30-11-12
PhD	Dept. of Materials Engg., IISc Bangalore, India	05-01-06 – 04-10-10
Scientist Fellow	National Metallurgical Laboratory (CSIR), Jamshedpur, INDIA	13-09-05 – 03-01-06
MTech	Metallurgical Engg., Jadavpur University, Kolkata, India	03-07-03 – 15-05-05
BE	IGEC Sagar, RGPV Bhopal, Madhya Pradesh	04-07-98 – 27-05-02

Teaching	ERP feedback (year wise)			
	21-22	20-21	19-20	18-19
Texture in Materials Engineering (MT60150, 3-0-0) - Spring	NA	3.98	NA	4.42
Mechanical Working of Materials (MT31009, 3-0-0) - Autumn	3.94	3.67	3.70	3.97
Mechanical Testing and Working Lab. (MT39009, 0-0-3) - Autumn	3.66	NA	3.59	3.91
Materials Characterisation Lab. (MT39004, 0-0-3) – Spring	NA	3.16	NA	3.60
Engineering Laboratory (EN19003, 0-0-3) - Autumn	4.07	-	-	-
X-ray & Electron Metallography Lab. (MT69009, 0-0-3) - Autumn	-	-	-	4.18

Video Lectures on the web

- NPTEL course: Texture in Materials - 35 hrs in 2021 – Link: <https://nptel.ac.in/courses/113/105/113105103/>
- GIAN course: Crystallographic Texture and Crystal Plasticity Modeling – 26 hrs lecture series with Prof. Laszlo Toth Univ Lorraine, Metz, France - 4th Dec – 14th Dec 2017 at IIT Kharagpur. -72 participants
Link: <https://www.youtube.com/watch?v=-xxIAUIXmpA&list=PLBNAhOTc16q9mkQGYpNrcQliQnwcYsmxb>

Research Areas

- Light metals and alloys; 2. Plastic deformation & mechanical working; 3. Microstructure and texture engineering
- Polycrystal plasticity modelling; 5. Advanced high-strength steels.

Publications	Peer reviewed				
H-index- 18	Patents & Copyright	International journals	Book chapters & encyclopaedia	Periodicals & proceedings	Invited talks in Int. confs.
After 18-11-2020	3	4	2	6	1
Before 18-11-20	4+1(copyright)	24	6	2	21
Total	7+1 (copyright)	28	8	8	22

Total PhD students: 9 (2 completed and 7 undergoing); **Total M.Tech. students:** (15 completed and 4 undergoing)

Student's Status after PhD: 1. Dr. Devesh K Chouhan, Pdf at Université de Lorraine, Metz, FRANCE
2. Dr. Sudeep K Sahoo, Pdf at Université de Bordeaux, Bordeaux, FRANCE

Sponsored Research projects	Rs. (Lakhs)	Rs. (Lakhs)	Rs. (Lakhs)
Tata Steel Ltd., (PI) (on going)	25.02+GST	ISIRD, IIT Kgp (PI) 28	SGDRI IITKgp(Co-PI) 250
ECRA, SERB, DST (PI)	54.99	DAE,BARNS (Co-PI) 32.16	CSIR (Co-PI) 19.68

Institute activities	
1. Faculty advisor/course co-ordinator, MME.	4. Co-PI of the X-ray texture Goniometer Bruker, CRF.
2. PI of the equipment Instron Electroplus E10000 in the Mechanical testing Lab, MME.	5. Assistant warden, LLR Hall -01-01-20 to 31-12-22.
3. Coordinating Head - iCAMMP-iv, 5-7 Nov 2016. – 550 participants.	6. Steering committee member of 5-S system (Short, Set in order, Shine, Standardize, Sustains) 23 rd March 2021.
	7. MOU between Univ Lorraine (UoL), France & IIT Kharagpur (Prof. Aubrun, Convener from UoL).

Research Facility developed at IIT Kharagpur:

For research on plastic deformation and advanced manufacturing (processing) technology and to streamline UG, PG laboratory on mechanical working, testing and characterization → Developed **Light Metals and Alloys Research Lab** - for manufacturing of metallic materials, their characterization, and mechanical property correlation:

1. For advanced **materials processing** and severe plastic deformation:

- 1500 KN Extrusion/Forging press – 1st in the institute (with ECAP, MAF, MPSF facility)
- High temperature furnace
- Fabricated hot/cold asymmetric and symmetric rolling mill
- Fabricating Friction stir processing equipment.

2. **Testing** – Instron Electroplus - Tensile, HCF/LCF, FCGR and Fracture toughness tests of miniature specimens

3. **Characterization** –

- 2 High-end optical Microscopes
- Abrasive cutters, slow speed cutter, Vacuum pump, ultrasonic cleaner, High end Struers electropolishing. Manual electropolishing system, 2 metallographic sample polishing system
- Developed a low cost semi-automatic metallographic sample polishing arm (J. K. Banikya 'BTP' received Certificate of Student Invention from IIT Kharagpur), **patent and copyright** applied.

4. **Analysis and modelling** – a. VPSC-7; b. ATEX, c. HKL-Oxford instruments, d. TSL - EDAX facilities

Review work: international journals

Acta Materialia;	Materials and Design;	Materials Science and Technology;
Philosophical Magazine;	Journal of Alloys and Compounds;	Metallurgical and Materials Transaction A;
Materials Characterization;	Philosophical Magazine Letters;	Journal of Materials Science, Springer;
Frontiers in Materials;	Transaction of Indian Institute of Metals;	Journal of Manufacturing Processes, SME;
Scientific Reports, Nature;	Materials Letters;	Materials Science and Engineering A;
Sadhna; Crystals;	Bulletin of Materials Science;	International journal of solids and structures;
Review work: Others	<i>Graduate Women in Science Fellowships, National Fellowship committee, USA.</i>	Journal of materials engineering & performance;
		Tata Steels Ltd., AHSS 2017 conference proceeding-2017

Other academic activities

1. Member of the national organizing committee of NanoSPD8-2021 at IISc Bangalore, India.
2. Committee member to address issues faced by students and smooth running of CRF – 2021.
3. Session Chair: Symposium “Integration between Modeling and Experiments for Crystalline Metals: From Atomistic to Macroscopic Scales III MS&T 21, Columbus, Ohio, USA -22 Oct 21
4. Served as President of Jury - PhD defence of Mr Robert Allen's (Mech. Engg., Mississippi State University, US & University of Lorraine, France) in LEM3, UOL, Metz, France on 25th Aug 2018.
5. DIY - PPE kit - gown, head-gear, Face shield, & gloves made of polypropylene /polyester /polyethene; natural rubber -2020 with J.K. Banikya Link: <https://www.youtube.com/watch?v=Y00fN9MGdmQ>
6. Innovative, spacious protective mask, with Hydrophobic, Sanitisation, and medicinal layer– 2020 with J.K. Banikya – Link: <https://www.youtube.com/watch?v=wgYvui6BDl8>
7. External reviewer PhD thesis: Mr A Verma, DIAT, Pune – March 2022.
8. VGSOM MBA selection committee – 2019, 2020, 2021.
9. Judge for the Research Scholars day in MME, IIT Kharagpur, 2015-2018.
10. Invited delegate at French-India knowledge summit (1st conf: 09 – 11 -03-18, New Delhi).
11. Organizer & Principal coordinator of the Symposium - in NMD-ATM, IIT Kanpur, 11th – 13th Nov. 2016.
12. Symposium Head - Advances in characterization of microstructure & texture, iCAMMP-iv, 5-7 Nov 16.
13. SGRIP workshop with Prof. Laszlo Toth, Director, LabEx–DAMAS, Metz, France on ‘Crystal Plasticity Modeling’ in MME, IIT Kgp during 02 – 23 October 2016. – 54 participants
14. SGRIP workshop with Prof. J. A. Szpunar, Canada Research Chair (T1), Univ Saskatchewan on ‘Structure & Properties of Polycrystalline Materials’ in MME, IITKgp, 04-10 to 15-11-16.– 46 participants
15. Convener of COMPOSIT conference in MME, IIT Kgp – 2015-2017.
16. External reviewer PhD thesis: Mr N Kumar of MME, IIT Roorkee -2016

Scholastic Achievements

1. Alexander Von Humboldt – Renewed research fellowship in Germany -May to July 2018
2. Received Early Career Research Award (ECRA) from DST-SERB India. – 2016-2019
3. Received Ramanujan Fellowship and withdrawn - 2014
4. Alexander Von Humboldt – postdoctoral fellowship in Germany -2013-2015

Additional information:

The Article ‘An analytical model to predict strain-hardening behaviour and twin volume fraction in a profoundly twinning magnesium alloy’ International Journal of Plasticity, 119 (2019) pages 273–290.’ was featured in **Canadian Engineering Research News: Advances in Engineering**.

Patents

1. Cold rolled low carbon microalloyed steel and method of manufacturing thereof, A.K. Singh, **S. Biswas**, B. Bhattacharya, D. Chouhan, M. Dutta; P||1486||9||2021, **2022**.
2. Method to produce high strength, ductility, and formability combination in cold-rolled low carbon micro-alloyed steel sheets, A.K. Singh, S. Biswas, B. Bhattacharya, D. Chouhan, Indian patent application, Reference no.: P||1485||9||2021, **2022**.
3. Low carbon mirco-alloyed steel having good ductility, strength and isotropy combination and method of manufacturing thereof, A.K. Singh, S. Biswas, B. Bhattacharya, D. Chouhan, Indian patent application ref. no.: 202131043212, **2021**.
4. A Semi-automatic metallographic sample preparation system, Somjeet Biswas. Jugal K Banikya, D. K. Chouhan; Indian Institute of Technology Kharagpur, India, Indian patent Application no.: 201931038369, dated September 23, **2019**.
5. System and method to produce nanostructure titanium with high strength and ductility combination by adapting ambient temperature multi-axial-plane-strain forging, S. Biswas. D.K. Chouhan, A.K. Singh, A.J. Shukla, Patent application no. 201931045383 Dated Nov. 7, **2019**.
6. A method to process interstitial-free (IF) steels by adapting multi-axial, Satyam Suwas, Somjeet Biswas, Satyaveer Singh D., Ayan Bhowmik, D. Bhattacharjee, R.K. Ray; Indian Institute of Science Bangalore and TATA Steel, India, Indian No.: WO/2010/049949, International patent: PCT/IN2009/000607 issued May 06, **2010**.
7. Method to produce ultrafine grains of magnesium of order of nanometers at room temperature and magnesium billet thereof, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas; Indian Institute of Science Bangalore, India. 1457/CHE/2008, Indian Patent, issued on December 12, **2009**.

Design Registration

8. Semi-Automatic Metallographic Sample Polishing Arm, Somjeet Biswas. Jugal K Banikya, Devesh Kumar chouhan; Indian Institute of Technology Kharagpur, India. Design Registration Ref. no./Application no.: 321814001, dated September 19, **2019**.

Publications

2021

9. Multiaxial plane-strain forging and rolling of biomedical grade titanium: Evolution of microstructure, texture, and mechanical properties, D.K. Chouhan, S. Biswas, Materials Letters 291, 129540. IF=3.423
10. Quantitative phase prediction in dual-phase high entropy alloys: Computationally aided parametric approach, A. S. Negi, A. Sourav, M. Heilmaier, Somjeet Biswas, T. Shanmugasundaram, Physica Status Solidi (B), Wiley, 258, 2100106. IF=1.710
11. On the possibility to reduce ECAP deformation temperature in magnesium: Deformation behaviour, dynamic recrystallization and mechanical properties, P.C. Gautam, S. Biswas, Materials Science and Engineering: A 812, 141103. IF=5.234
12. Microstructure and texture evolution in rapidly solidified melt-spun Ni₅₀Mn₂₈Ga₂₂ ribbons, D. K. Satapathy, Somjeet Biswas, S. Aich, Journal of Magnetism and Magnetic Materials, 557, 167784. IF=2.993
13. Twin induced Strain Hardening, Grain Fragmentation, and Texture Evolution during Cold Compression of CP-Ti, DK Chouhan, S Biswas, IOP Conference Series: Materials Science and Engineering 1121 (1), 012026.

14. Fracture toughness of hot rolled pure magnesium: Correlation with microstructure and texture, GC Prakash, HN Bar, S Sivaprasad, S Tarafder, S Biswas, IOP Conference Series: Materials Science and Engineering 1121 (1), 012028.
15. Improving Ductility in Dual-Phase Steel by Cold Rolling and Intercritical Annealing, AK Singh, B Bhattacharya, S Biswas, IOP Conference Series: Materials Science and Engineering 1121 (1), 012025.
16. Effect of ECAP temperature on the microstructure, texture evolution and mechanical properties of pure magnesium, PC Gautam, S Biswas, Materials Today: Proceedings 44, 2914-2918.
17. Microstructure and texture evolution during multi-direction forging of titanium, DK Chouhan, S Biswas, Materials Today: Proceedings 44, 3102-3105.
18. Simultaneous improvement in strength and ductility in low carbon steel via intercritical annealing and quenching treatments, AK Singh, B Bhattacharya, S Biswas, Materials Today: Proceedings 44, 2909-2913

2020

19. High tensile strength-ductility combination in cold multiaxial plane-strain forged and rolled nanostructured Titanium, D K Chouhan, Somjeet Biswas, A K Singh, A J Shukla, Materialia, <https://doi.org/10.1016/j.mtla.2020.100698>
20. Evolution of microstructure and crystallographic texture in α - β Brass during equal channel angular pressing, S S Dhinwal, A J Shukla, S Biswas, D K Chouhan, Materials Characterization, 110270, 2020. <https://doi.org/10.1016/j.matchar.2020.110270> IF=4.342
21. Strain hardening, twinning and texture evolution in magnesium alloy using the all twin variant polycrystal modelling approach, S K Sahoo, Somjeet Biswas, L S Toth, P C Gautam, B Beausir, International Journal of Plasticity, 2020.

<https://doi.org/10.1016/j.ijplas.2020.102660> IF=7.081

22. Dynamic Recrystallization and its effect on Microstructure and Texture Evolution in Magnesium alloys, Somjeet Biswas, P. C. Gautam, Aman J. Shukla, Devesh K. Chouhan, Encyclopedia of Smart Materials, Elsevier.
23. Nanostructuring of materials by Severe Deformation Processes, Aman J Shukla, Devesh K. Chouhan, Somjeet Biswas, Composite Materials: Properties, Characterisation, and Applications, CRC Press, 2021.

2019

24. An analytical model to predict strain-hardening behaviour and twin volume fraction in a profoundly twinning magnesium alloy, S K Sahoo, L S Toth, Somjeet Biswas, International Journal of Plasticity, 119 (2019) 273-290. IF=7.081.
25. On the Strain-Hardening Behavior and Twin-Induced Grain Refinement of CP-Ti Under Ambient Temperature Compression, DK Chouhan, AK Singh, S Biswas, C Mondal, Metallurgical and Materials Transactions A (2019) 1-20. IF=2.556
26. An Overview on the Texture Evolution of Cold Rolled IF Steels and Zn Coating During Galvanizing and Galvannealing, S Biswas, S Samanta, AK Singh, B Bhattacharya, SB Singh, Reference Module in Materials Science & Materials Engineering (2019).
27. Microstructure, texture evolution and dynamic recrystallization in Magnesium, S Biswas, S K Sahoo, D K Chouhan, P C Gautam, A J Shukla, Reference Module in Materials Science & Materials Engineering (2019).
28. On the texture and electronic properties of Cu thin-film interconnects, S Biswas, S Das, S Bhattacharya, A K Singh, Reference Module in Materials Science and Materials Engineering (2019).

2018

29. Deformation behavior and evolution of microstructure and texture during hot compression of AISI 304LN stainless steel, M. Rout, Somjeet Biswas, R. Ranjan, S. K. Pal, S. B. Singh, *Metallurgical and Materials Transaction A.*, Volume 49A, 864-880, 2018. DOI 10.1007/s11661-017-4447-5. IF=2.556

2016

30. Twinning-Induced Elasticity in NiTi Shape Memory Alloys, Thorsten Birk, Somjeet Biswas, Jan Frenzel, Gunther Eggeler, *Shape Memory and Superelasticity*, Special Issue: Research on Biomedical Shape Memory Alloys, Invited Paper, Volume 2, Issue 2, June 2016, Pages 145-159. IF=1.904
31. Evolution of Microstructure and Texture in 304 Austenitic Stainless Steel by Two Different Modes of Hot Rolling, Matruprasad Rout, Surjya K Pal, Shiv B. Singh, Somjeet Biswas, *Proceedings of the International Conference on Advances in Materials and Manufacturing*, (ICAMM), Hyderabad, pp 411- 416, 2016.

2015

32. Thermal Response on the Microstructure and Texture of ECAP and Cold-Rolled Pure Magnesium, Somjeet Biswas, D.S. Singh, B. Beausir, L.S. Toth, S. Suwas. *Metallurgical and Materials Transaction A*, Volume 46, June 2015, pages 2598-2613. IF=2.556
33. Role of deformation temperature on the evolution and heterogeneity of texture during equal channel angular pressing of magnesium, Somjeet Biswas, H.-G. Brokmeier, J.-J. Fundenberger, S. Suwas. *Materials Characterization*, Volume 102, April 2015, pages 98-102. IF=4.342

2013

34. Notes on representing grain size distributions obtained by electron backscatter diffraction, L.S. Toth, Somjeet Biswas, C.F. Gu, B. Beausir. *Materials Characterization*, Volume 84, 2013, pages 67-71. IF=4.342.
35. Evolution of texture and microstructure during hot torsion of a magnesium alloy, Somjeet Biswas, B. Beausir, L.S. Toth, S. Suwas; *Acta Materialia*. Volume 61, Issue 14, August 2013, pages 5236-5277. IF=8.203. (The article was ranked # 6 (Top 25 hottest articles) amongst papers published in *Acta Materialia* during July-September 2013.)
36. Relationship between the 3D porosity and β -phase distributions and the mechanical properties of a high pressure die cast AZ91 Mg alloy; Somjeet Biswas, F. Sket, M. Chiumenti, I. Gutiérrez-Urrutia, J.M. Molina-Aldareguía, M.T. Pérez-Prado, *Metallurgical and Materials Transactions A*, Volume 44, Issue 9, September 2013, pages 4391-4403. IF=2.556.

2012

37. Corrosion Behavior of Ultra Fine Grain Pure Magnesium for Automotive Applications, P. K. A. Babu, A. S. Nilawar, P. Vishvakarma, Somjeet Biswas, S. Suwas, G. Manivasagam, *SAE International Journal of Materials and Manufacturing*, Volume 6, 1, 99-104, 2012.
38. Asymmetric and symmetric rolling of Magnesium: Evolution of microstructure, texture and mechanical properties, Somjeet Biswas, Dong-Ik Kim, Satyam Suwas, *Materials Science and Engineering A*, Volume 550, 30 July 2012, Pages 19-30. IF=5.234
39. Evolution of sub-micron grain size and weak texture in magnesium alloy AM30 by multi axial forging - Effect on mechanical properties, Somjeet Biswas, Satyam Suwas, *Scripta Materialia*, 66, January 2012, 89-92. IF=5.611 (The article was ranked # 21 (Top 25 hottest articles amongst papers published in *Scripta Materialia* during October-December 2011.)
40. Microstructure and Texture Evolution in Interstitial-free (IF) Steel processed by Multi-Axial Forging, A. Bhowmik, Somjeet Biswas, Satyaveer Singh D., A. Sarkar, R.K. Ray, D. Bhattacharjee, Satyam Suwas, *Materials Science Forum*, vols. 702-703, 2012, Pp 774-777.

2011

41. Analysis of texture evolution in pure magnesium and the magnesium alloy AM 30 during rod and tube extrusion, Somjeet Biswas, Satyam Suwas, R. Sikand, Anil K. Gupta, Materials Science and Engineering A, 528, 10-11, 25 April 2011, Pp. 3722-3729. IF=5.234.
42. Microstructure and Texture Evolution of Pure Magnesium during ECAE, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas, Frontiers in Mechanochemistry and Mechanical Alloying, 2011, pages 159-163.

2010

43. Room temperature ECAE of pure Magnesium, Somjeet Biswas, Satyaveer Singh Dhinwal, Satyam Suwas; Acta Materialia, 58, 9, May 2010, Pp. 3247-3261. IF=8.203 (The article was ranked # 9 (Top 25 hottest articles) among papers published in Acta Materialia during April-June 2010.)

2009

44. Analysis of microstructure and texture evolution in pure magnesium during symmetric and asymmetric rolling, Benoît Beausir, Somjeet Biswas, Dong -Ik Kim, László S. Toth, Satyam Suwas; Acta Materialia, 57, 17, October 2009, Pp 5061-5077. IF=8.203.
45. Evolution of grain-boundary microstructure and texture in interstitial-free steel processed by equal-channel angular extrusion, Ayan Bhowmik, Somjeet Biswas, Satyam Suwas, R.K. Ray and D. Bhattacharjee; Metal Mater Trans A, 40, 11, 2009, Pp. 2729-2742. IF=2.556.
46. Deformation characteristics of superplastic AA7475 alloy, P. Mukhopadhyay, Somjeet Biswas, A. H. Chokshi; Transaction of Indian Institute of Metals, Volume 62, Issue 2, April 2009, Pp. 149-152. IF=1.499.
47. Grain growth in ECAE processed pure magnesium, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas; Microstructure and Texture in Steels and some other materials, Ed.: A.Haldar, S. Suwas, D. Bhattacharjee, Publisher-Springer Verlag London., 2009, Pp. 465-473.
48. Ultra-fine Grain Materials by Severe Plastic Deformation: Application to Steels, Satyam Suwas, Ayan Bhowmik, Somjeet Biswas ; Microstructure and Texture in Steels and some other materials, Ed.: A.Haldar, S. Suwas and D. Bhattacharjee, Publisher-Springer Verlag London., 2009, Pp. 325-344.
49. Evolution of crystallographic texture during Equal Channel Angular Extrusion (ECAE) of ($\alpha+\beta$) brass, Satyaveer Singh D., Ayan Bhowmik, Somjeet Biswas, Satyam Suwas, K. Chattopadhyay; Microstructure and Texture in Steels and some other materials, Ed.: A.Haldar, S. Suwas and D. Bhattacharjee, Publisher-Springer Verlag London., 2009, pp. 457-464.

2008

50. Study of Texture Evolution of pure magnesium during ECAE using EBSD, Somjeet Biswas, Satyaveer Singh D., Ayan Bhowmik, Satyam Suwas; Materials Science Forum, vols. 584-586, 2008, Pp. 343-348..
51. Texture and grain boundary character distribution during Equal Channel Angular Extrusion of some two phase copper alloy, Satyam Suwas, Somjeet Biswas, Satyaveer Singh D. and K. Chattopadhyay; Materials Science Forum, vols. 584-586, 2008, Pp. 585-590.

2007

52. Load history effect on FCGR behaviour of 304LN stainless steel, Somjeet Biswas, S. Sivaprasad, N. Narasaiah, S. Tarafder and P.C. Chakraborti; International Journal of Fatigue, Elsevier Science, Volume 29, Issue 4, April 2007, Pp. 786-791. IF=5.186.

Invited Talks

1. *Extension twin induced strain hardening and texture evolution in AM30 alloy: Experiments and crystal plasticity modelling*, MS&T, Columbus, Ohio, USA, October 17-21, 2021.
2. *Modeling of deformation twinning behavior and texture evolution in a magnesium alloy using polycrystal plasticity*, *International journal of plasticity*, Mexico, 1st – 6th Jan 2020.
3. *Modeling of deformation twinning in Mg-alloys using polycrystal plasticity*, International conference on advanced materials and processes for defence applications (ADMAT), Hyderabad, Sept 23-25, 2019.
4. *Deformation behavior of Magnesium alloys useful for automobile and aerospace applications*, 10th Indo-German Frontiers of Engineering Symposium, Potsdam, Germany, 24-26 May 2018.
5. *Microstructure and Texture Evolution during Multi-Axial Forging of Magnesium alloy Mg–3Al–0.4Mn*, Magnesium Innovations Center (MagIC), Institut für Werkstoffforschung, Helmholtz-Zentrum Geesthacht, Germany, Germany, July 2018.
6. *Evolution of microstructure and texture during MAF of Mg alloys*, Invited Talk at Department of Mechanical Engineering, University of Saskatchewan, Saskatoon, Canada, 20 Nov 2017.
7. *Microstructure and texture evolution during modified multi-axial forging of Magnesium alloy Mg–3Al–0.4Mn*, International conference on Texture of Materials (ICOTOM) 2017, Saint George, Utah, US, 05 -10 Nov 2017.
8. *Evolution of Microstructure and texture during plastic deformation of metals and alloys*, R&D and Scientific Services of Tata Steel Limited on 20th September 2017.
9. *Application of EBSD in various metals and alloys*, IIM - JSW joint workshop, JSW Steel, Salem Works, Tamil Nadu, 30 August – 01 September 2017.
10. *Texture and light alloys*, Dept. of Materials Engg., DIAT (DU), Girinagar, Pune, 10 – 14 July 2017
11. *Microtexture using Electron Microscopy*, Processing & Characterization of Materials (PCM), by QIP, AICTE in Veer Surendra Sai University of Technology, Sambalpur, Odisha, 24th – 29th April, 2017.
12. *X-ray diffraction*, Processing & Characterization of Materials (PCM), by QIP, AICTE in Veer Surendra Sai University of Technology, Sambalpur, Odisha, 24th – 29th April, 2017.
13. *Grain refinement and texture evolution by Free end torsion test and Equal channel angular pressing of Mg based light alloys*, Conference on Deformation and Texture in Materials, TEQIP-II, Department of Metallurgical and Materials Engineering, Jadavpur University, 16th February 2017.
14. *Evolution of Microstructure and Texture by Severe Plastic Deformation of Magnesium alloys*, International Conference on Texture, Micro-texture and Mechanical Behaviour-2017 (Texture 2017) in IISc Bangalore. 13 – 15 February 2017
15. Keynote on ‘*Microstructure and texture evolution by Severe Plastic Deformation: Application to Magnesium alloys*’ at NMD-ATM, IIT Kanpur, 11 – 14 November 2016.
16. *Free End Torsion tests of Mg alloys*, The fourth International Conference on Advances in Materials and Materials Processing (iCAMMP-iv) in IIT Kharagpur, 05 – 07 November 2016.
17. *Mechanism of Texture formation*, UGC-NRCM Workshop on Texture of Materials, Dept of Materials Engg., IISc Bangalore (1 Hr 30 min). 15-19 February 2015.
18. *Texture in Magnesium alloys*, UGC-NRCM Workshop on Texture of Materials, Dept of Materials Engg., IISc Bangalore (1 Hr 30 min). 15-19 February 2015.
19. *Effect of Thermo-Mechanical Processing Strain on the Pseudoelastic Effect of Ti-Ni SMA* at Humboldt - Universität zu Berlin (15 mins). 2014.

20. *Deformation processing of Magnesium and single phase Mg-Al alloys* at LabEx DAMAS, LEM3, UMR 7239, CNRS, Université de Lorraine – Metz, France (1 Hr) Nov 2013.
21. *Evolution of microstructure and texture during severe plastic deformation and annealing of magnesium alloys* S. Suwas, R.K. Sabat, Somjeet Biswas, R.K. Mishra, Fifth International Conference on Recrystallization and Grain Growth" Sydney, Australia; 5 - 10 May 2013.
22. *Electron Back-scatter Diffraction Study of Deformed and Annealed Materials* S. Suwas, Somjeet Biswas, Shibayan Roy, XXXI Annual General Meeting of Electron Microscopy Society of India (EMSI), BARC, Mumbai, 8-10th March, 2010.

Papers presented in international conferences

1. Microstructure-Mechanical property correlation of High Pressure Die cast AZ91 magnesium alloy, Somjeet Biswas, Federico Sket, Teresa Pérez Prado; International conference on strength of Materials (ICSMA-16), Indian Institute of Science Bangalore, August 2012.
2. Processing-Texture-Property Relationship in ECAE Processed Two Phase ($\alpha+\beta$) Brass, A. Bhowmik, Somjeet Biswas, S. Singh, N. Gurao, S. Suwas, The 15th International Conference on texture of Materials, CMU, Pittsburgh, USA, June 1-6, 2008.
3. Deformation characteristics of superplastic AA7475 alloy, P. Mukhopadhyay, Somjeet Biswas, A. H. Chokshi, 10th International Conference on Advanced Materials, Bangalore, 2007.

Papers presented in national conferences

1. Thermal stability of Multi axially forged Interstitial free Steel, Pankaj Kumar, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas. National Metallurgical Day-Annual Technical Meeting (NMD-ATM), Kolkata, INDIA Nov-2009. (Awarded 1st Prize)
2. Equal Channel Angular Extrusion of two phase tin based alloys: Grain refinement, thermal, stability and compression properties, Somjeet Biswas, J. Krishna Reddy, Satyaveer Singh D., Satyam Suwas, National Metallurgical Day-Annual Technical Meeting (NMD-ATM), Jamshedpur, November, 2006.
3. Load history effect on Fatigue Crack Growth Behavior of 304 LN Stainless Steel, Somjeet Biswas, S. Sivaprasad, S. Tarafder, P.C. Chakraborti, National Metallurgical Day-Annual Technical Meeting (NMD-ATM), Chennai, November, 2005. (Awarded 2nd Prize)
4. Evolution of microstructure and texture during processing of pure Mg and its alloy AM30, Somjeet Biswas, NRC-M Workshop on Interface Related Mechanical Behavior of Materials, 12-13 October 2009, UGC Networking Resource Centre for Materials, Dept. Materials Engineering, IISc, Bangalore
5. Texture Evolution during ECAE of Pure Magnesium, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas, International Symposium for Research Scholars on Metallurgy, Materials Science and Engineering, IIT Madras, December 10 - 12, 2008.
6. The effect of temperature on the stability of microstructure of ECAE processed Pure Magnesium, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas, Diamond Jubilee Symposium, Dept. of Materials Engg., IISc, Bangalore, India 4-6 July 2007.
7. Texture evolution during ECAE of pure magnesium, Somjeet Biswas, Nilesh Gurao, Satyam Suwas, Diamond Jubilee Symposium, Dept. of Materials Engg., IISc, Bangalore, India, 4-6 July 2007.
8. Magnesium ECAE: Limitations and Possibilities, Somjeet Biswas, Satyaveer Singh D., Satyam Suwas, 22nd Annual Symposium on Metallurgical and Materials Research IISc, Bangalore, India, 4-5 March 2009.