Department of Metallurgical and Materials Engineering
Indian Institute of Technology, Kharagpur
Kharagpur 721 302
Phone: 03222 283290 (O), 03222 283291 (R)
Fax: 032222 282280 (O)
Email: sbs22@metal.iitkgp.ernet.in

Shiv Brat Singh

Present position	Professor, Department of Metallurgical and Materials Engineering Indian Institute of Technology, Kharagpur
Date of birth	19th September 1970
Educational qualification	Qualification (Subject) — Year — Institution Ph. D. (Metallurgy) — 1998 — University of Cambridge UK Master of Engg. (Metallurgy) — 1992 — Indian Institute of Science Bangalore Bachelor of Engg. (Metallurgy) — 1990 — Bengal Engg. College Sibpur
Ph. D. thesis	Phase Transformations from Deformed Austenite
Awards / Scholarships	• Merit Scholarship, 1988-1990, B.E. College, Sibpur • Indranil Medal (Mining, Geological and Metallurgical Inst. of India), 1991 • Nehru Cambridge Scholarship, 1995-1998 • British Chevening Scholarship, 1995-1996 • Best poster-paper at NMD-ATM, Hyderabad, 1993 • Best paper in Tata Search 2001 (Tata Search is an annual journal of Tata Steel covering the technological advances in Tata Steel). • Significant contribution in development of High Strength Dent Resistant Steel at Tata Steel which won the company the *National Award for R & D Efforts in Industry – 2001; Category – New Materials,* awarded by **DSIR, Govt. of India.** • Young Metallurgist of the Year Award (Govt of India), 2003 • DAAD, 2007 • Endeavour Executive Award, 2011 by the Australian Government

Area of work	Physical Metallurgy of steels, Phase Transformations, Thermomechnical simulation (i) IF, BH, DP, TRIP aided and microalloyed steels (ii) Bainite and pearlite transformations (iii) Microstructure modelling, especially in steels (iv) Bake hardening effect
Professional membership	Life member of Materials Research Society of India (MRSI) Life member of Indian Institute of Metals (IIM)
Selected publications	i. **S. B. Singh**, K. Krishnan and S. S. Sahay, "Modeling Non-isothermal Austenite to Ferrite Transformation in Low Carbon Steels", *Materials Science and Engineering A*, **445-446A**, 2007, 310-315. ii. P.Majumdar, **S. B. Singh** and M. Chakraborty, "Elastic Modulus of Biomedical Titanium Alloys by Nano-indentation and Ultrasonic Techniques – A Comparative Study", *Materials Science and Engineering A,***489A**, 2008, 419-425. iii. M. Mukherjee, **S. B. Singh** and O. N. Mohanty, "Deformation induced transformation of retained austenite in TRIP aided steels: A thermodynamic model", *Metallurgical and Materials Transactions A*, **39A**, 2008, 2319-2328. iv. **M**. Dutta and **S. B. Singh**, "Effect of Strip Temperature on Formation of Fe_2Al_5 Inhibition Layer During Hot Dip Galvanizing", *Scripta Materialia*, **60**, 2009, 643-646 v. R. Rana, **S. B. Singh,** W. Bleckand O. N. Mohanty, "Biaxial Stretching Behavior of a Copper-Alloyed Interstitial Free Steel by Bulge Test", *Metallurgical and Materials Transactions A*, **41A**, 2010, 1483-1492 vi. P. Majumdar, **S.B. Singh** and M. Chakraborty, "The Influence of Heat Treatment and Role of Boron on Sliding Wear Behabiour of β-Type Ti-35Nb-5.7Ta-7.2Zr Alloy in Dry Condition and in Simulated Body Fluids", *Journal of the Mechanical Behavior of Biomedical Materials,* **4,** 2011, 284–297. vii. R. Rana, V. Massardier, **S.B. Singh**, and O. N. Mohanty, "Effect of pre-treatment on copper precipitation characteristics in a copper-alloyed high strength interstitial free steel studied by thermoelectric power measurement", *Metallurgical and Materials Transactions A*, **44A**, 2013, 186-200 viii. S. Das, O. N. Mohanty and **S. B. Singh**, "A phenomenological model for bake hardening in minimal carbon steels", *Philosophical Magazine*, 94, 2014, 2046-2061 ix. R. Ranjan, H. Beladi, **S. B. Singh**, P. Hodgson, "Thermo-mechanical processing of TRIP aided steels", *Metallurgical and Materials Transactions A*, 46, 2015, 3232-3247 x. S. Samanta, P. Biswas, S. Giri, **S. B. Singh**, S. Kundu, "Formation of bainite below the M_S temperature: Kinetics and crystallography", *Acta Materialia*, 105, 2016, 390-403