

**Shiv Brat Singh**

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<b>Present position</b>	Professor, Department of Metallurgical and Materials Engineering Indian Institute of Technology, Kharagpur												
<b>Date of birth</b>	19 <sup>th</sup> September 1970												
<b>Educational qualification</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Qualification (Subject)</th> <th style="text-align: left;">Year</th> <th style="text-align: left;">Institution</th> </tr> </thead> <tbody> <tr> <td>Ph. D. (Metallurgy)</td> <td>1998</td> <td>University of Cambridge UK</td> </tr> <tr> <td>Master of Engg. (Metallurgy)</td> <td>1992</td> <td>Indian Institute of Science Bangalore</td> </tr> <tr> <td>Bachelor of Engg. (Metallurgy)</td> <td>1990</td> <td>Bengal Engg. College Sibpur</td> </tr> </tbody> </table>	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
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<b>Ph. D. thesis</b>	Phase Transformations from Deformed Austenite												
<b>Awards / Scholarships</b>	<ul style="list-style-type: none"> <li>• Merit Scholarship, 1988-1990, B.E. College, Sibpur</li> <li>• Indranil Medal (Mining, Geological and Metallurgical Inst. of India), 1991</li> <li>• Nehru Cambridge Scholarship, 1995-1998</li> <li>• British Chevening Scholarship, 1995-1996</li> <li>• Best poster-paper at NMD-ATM, Hyderabad, 1993</li> <li>• Best paper in Tata Search 2001 (Tata Search is an annual journal of Tata Steel covering the technological advances in Tata Steel).</li> <li>• Significant contribution in development of High Strength Dent Resistant Steel at Tata Steel which won the company the <i>National Award for R &amp; D Efforts in Industry – 2001; Category – New Materials</i>, awarded by <b>DSIR, Govt. of India</b>.</li> <li>• Young Metallurgist of the Year Award (Govt of India), 2003</li> <li>• DAAD, 2007</li> <li>• Endeavour Executive Award, 2011 by the Australian Government</li> </ul>												

<b>Area of work</b>	<p>Physical Metallurgy of steels, Phase Transformations, Thermomechanical simulation</p> <ul style="list-style-type: none"> <li>(i) IF, BH, DP, TRIP aided and microalloyed steels</li> <li>(ii) Bainite and pearlite transformations</li> <li>(iii) Microstructure modelling, especially in steels</li> <li>(iv) Bake hardening effect</li> </ul>
<b>Professional membership</b>	<p>Life member of Materials Research Society of India (MRSI)</p> <p>Life member of Indian Institute of Metals (IIM)</p>
<b>Selected publications</b>	<ul style="list-style-type: none"> <li>i. <b>S. B. Singh</b>, K. Krishnan and S. S. Sahay, "Modeling Non-isothermal Austenite to Ferrite Transformation in Low Carbon Steels", <i>Materials Science and Engineering A</i>, <b>445-446A</b>, 2007, 310-315.</li> <li>ii. P.Majumdar, <b>S. B. Singh</b> and M. Chakraborty, "Elastic Modulus of Biomedical Titanium Alloys by Nano-indentation and Ultrasonic Techniques – A Comparative Study", <i>Materials Science and Engineering A</i>, <b>489A</b>, 2008, 419-425.</li> <li>iii. M. Mukherjee, <b>S. B. Singh</b> and O. N. Mohanty, "Deformation induced transformation of retained austenite in TRIP aided steels: A thermodynamic model", <i>Metallurgical and Materials Transactions A</i>, <b>39A</b>, 2008, 2319-2328.</li> <li>iv. <b>M. Dutta</b> and <b>S. B. Singh</b>, "Effect of Strip Temperature on Formation of Fe<sub>2</sub>Al<sub>5</sub> Inhibition Layer During Hot Dip Galvanizing", <i>Scripta Materialia</i>, <b>60</b>, 2009, 643-646</li> <li>v. R. Rana, <b>S. B. Singh</b>, W. Bleck and O. N. Mohanty, "Biaxial Stretching Behavior of a Copper-Alloyed Interstitial Free Steel by Bulge Test", <i>Metallurgical and Materials Transactions A</i>, <b>41A</b>, 2010, 1483-1492</li> <li>vi. P. Majumdar, <b>S.B. Singh</b> and M. Chakraborty, "The Influence of Heat Treatment and Role of Boron on Sliding Wear Behaviour of <math>\beta</math>-Type Ti-35Nb-5.7Ta-7.2Zr Alloy in Dry Condition and in Simulated Body Fluids", <i>Journal of the Mechanical Behavior of Biomedical Materials</i>, <b>4</b>, 2011, 284-297.</li> <li>vii. R. Rana, V. Massardier, <b>S.B. Singh</b>, 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", <i>Metallurgical and Materials Transactions A</i>, <b>44A</b>, 2013, 186-200</li> <li>viii. S. Das, O. N. Mohanty and <b>S. B. Singh</b>, "A phenomenological model for bake hardening in minimal carbon steels", <i>Philosophical Magazine</i>, <b>94</b>, 2014, 2046-2061</li> <li>ix. R. Ranjan, H. Beladi, <b>S. B. Singh</b>, P. Hodgson, "Thermo-mechanical processing of TRIP aided steels", <i>Metallurgical and Materials Transactions A</i>, <b>46</b>, 2015, 3232-3247</li> <li>x. S. Samanta, P. Biswas, S. Giri, <b>S. B. Singh</b>, S. Kundu, "Formation of bainite below the M<sub>s</sub> temperature: Kinetics and crystallography", <i>Acta Materialia</i>, <b>105</b>, 2016, 390-403</li> </ul>