


Name	Dr. Subrata Karmakar 
Date of Birth	February 1, 1973
Designation	Associate Professor & Head
Official address/Department	Department of Farm Machinery and Power, Faculty of Agricultural Engineering, BCKV, Mohanpur, (W. B.) 741 252 India
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Working in BCKV since	1998
Professional Training	<ol style="list-style-type: none"> 1. Certificate Program on 'Scholarship of University Teaching & Learning', Gwena Moss Teaching and Learning Centre, Saskatoon, Sept 2004 - April 2005. University of Saskatchewan, Canada 2. Computer Aided Design of Agricultural Machinery (ICAR, New Delhi), Central Institute of Agricultural Engineering, Bhopal, India. Dec 1-21, 1999. 2. Advances in Tillage and Traction (ICAR, New Delhi), Centre of Advanced Studies, PAU, Ludhiana, India, Feb 9- Mar 1, 2002. 4. Environmental Issues and its Modulation (UGC, Govt. of India), Kalyani University, West Bengal, India. Jan 1-21, 2008 5. Remote Sensing and GIS (ISRO, Govt. of India), IIT Kharagpur, India, May 5-16, 2008 6. Bio-Fuels: Sustainable Alternate to Fossil Fuels (ICAR, New Delhi), Central Institute of Agricultural Engineering, Bhopal, India. November 10-30, 2009 7. Developing Winning Research Proposals in Agricultural Research (NAIP, ICAR, New Delhi), National Academy of Agricultural Research Management, Hyderabad, April 22- 27, 2010
National/International recognition/awards	<ol style="list-style-type: none"> 1. University Publications Fund Award to financially support the published Book 'Modeling of Soil-Tool Interaction in Tillage", University of Saskatchewan, Canada 2009.

	<ol style="list-style-type: none"> 2. Visiting Scientist Fellowship by Royal Society of UK, nominated by Cranfield University, UK 2006. 3. Australian Post Doctoral Fellowship Industry (APDI) nomination from University of South Australia, Adelaide, Australia, 2005-2006. 4. President's Travel Award from University of Saskatchewan, Canada for attending 2005 ASAE International Conference at Florida, USA. 5. Alumni Travel Award from University of Saskatchewan for 2004 ASAE International Conference, Ottawa, Canada. 6. ISAE Reddy Award for 'Best Masters Thesis Award' in Agricultural Engineering by ISAE, for the year 1997-1998, New Delhi. 7. University Gold Medal (B.E.) for overall university first rank by the Governor of Rajasthan, India. 8. Offered appointment as Associate Professor of Agricultural Engineering, Department of Mechanical Engineering, St. Augustine Campus, University of West Indies, Trinidad and Tobago. (2008) 9. Member, Grant Application Management System, Australian Research Council 10. Reviewer of seven international journals (Elsevier, American transactions etc). 11. Member, Technical Selection committee (2 National Institutes).
<p>Research Interests and area of specialization</p>	<ol style="list-style-type: none"> 1. Soil-tillage dynamic interface 2. Bio-energy systems 3. Numerical modeling 4. Decision support system
<p>Best 10 Publications with NAAS impact score > 5</p>	<ol style="list-style-type: none"> 1. Bartzanas, T., M. Kacira, H. Zhu, S. Karmakar, E. Tamimi, N. Katsoulas, In Bok Lee, C. Kittas, 2012. Computational fluid dynamics applications to improve crop production systems. Computers and Electronics in Agriculture. Article in Press, Available online 29 June 2012. 2. Karmakar, A., S. Karmakar and S. Mukherjee. 2010.

Properties of various plants and animals feedstocks for biodiesel production. **Bioresour. Technol.**, 101: 7201-7210.

3. **Karmakar, S.**, M. Nketia, C. Laguë, J. Agnew and H. Landry. **2010**. Development of Expert System Modeling based Decision Support System for swine manure management. **Computers and Electronics in Agriculture**. 71: 88-95.
4. **Karmakar. S.**, S. R. Ashrafizadeh and R. L. Kushwaha. **2009**. Experimental Validation of Computational Fluid Dynaics Modeling for Narrow Tillage Tool Draft. **Journal of Terramechanics** 46(6): 277-283.
5. **Karmakar. S.**, C. Laguë, J. Agnew and H. Landry. **2007**. An integrated decision support system (DSS) for the design, selection and operation of manure management. **Computers and Electronics in Agriculture**. 97: 407-414.
6. **Karmakar. S.** and R. L. Kushwaha. **2007**. Development and laboratory evaluation of soil visco-plastic parameters using a Soil Rheometer. **Journal of Terramechanics**. 44: 197-204.
7. **Karmakar. S.**, R. L. Kushwaha and C. Laguë. **2007**. Numerical modeling using Computational Fluid Dynamics of Soil Stress and Pressure Distribution on a Flat Tillage Tool. **Biosystems Engineering**, (Silsoe Research Institute), 57: 190-201.
8. **Karmakar. S.** and R. L. Kushwaha. **2005**. Simulation of soil deformation around a tillage tool using computational fluid dynamics. **Transactions of the ASAE** 48(3): 923-932.
9. **Karmakar. S.**, R. L. Kushwaha and D. S. Stilling. **2005**. Soil failure associated with crack propagation for an agricultural tillage tool. **Soil & Tillage Research**. 84(2): 119-126. (*3rd in Top 25 Science Direct Articles*)
10. **Karmakar, S.**, Sharma, J. and Kushwaha, R.L. **2004**. Critical state elasto-plastic constitutive models for soil failure in tillage. **Canadian Biosystems Engineering** 46: 2.19-2.23.

<p>Books or Chapter in Books</p>	<p>Book Editing</p> <ol style="list-style-type: none"> 1. Modeling of Soil-Tool Interaction in Tillage 2008: ISBN: 978-81-7895-349-6. Editor- S. Karmakar, Transworld Research Network, Trivandrum, Kerala, India 2. Advances in use of non conventional energy sources for agriculture, fisheries and rural development. Eds. C. Saha, L. K. Nayak., S. Karmakar. Proceedings of the 25th national convention of agricultural engineers. 19-20 January, 2012. Institute of Engineers (India), WBSC, Kolkata. <p>Publication as Book Chapters</p> <ol style="list-style-type: none"> 1. Karmakar, S. 2012. Tillage and Traction. Chapter X. Handbook of Agricultural Engineering. ICAR, New Delhi. 2. Karmakar, S. and K. P. Pandey. 2008. Soil characterization for modeling of soil-tool interaction. In S. Karmakar (eds.) Modeling of Soil-Tool Interaction in Tillage. Transworld Research Network, Trivandrum. 3. Tekeste, M. J., A. J. Koolen and S. Karmakar. 2008. Critical State Parameters for Unsaturated Soil Conditions in Tillage Modeling. In S. Karmakar (eds.) Modeling of Soil-Tool Interaction in Tillage. Transworld Research Network, Trivandrum. 4. Karmakar, S. and R. L. Kushwaha. 2008. Application of Computational Fluid Dynamics Modeling to Soil Tillage. In S. Karmakar (eds.) Modeling of Soil-Tool Interaction in Tillage. Transworld Research Network, Trivandrum.
<p>Courses teaching</p>	<ol style="list-style-type: none"> 1. Farm Machinery & Power, 2. Renewable Energy Sources, 3. Computer Aided Design & Manufacturing (CAD-CAM) 4. Field operation and Maintenance of Tractor and Farm Machinery,

	<p>5. Mechanics in Tillage and Traction</p> <p>6. Soil Dynamics in Tillage & Traction</p>
Research Projects/ supports	<p>1. Training to Agricultural Officers on Farm Mechanization (RKVY sponsored)</p> <p>2. Development of integrated model for potato based cropping system with Mechanization and Agro-processing (RKVY sponsored)</p>
Number of Seminar/ symposium attended	<p>International: 11</p> <p>National: 6</p>
Laboratory strength, you work in	<p>Soil dynamics Lab, CAD/CAM lab with CNC Machine, Farm Power and Machinery Lab</p>
Additional duty in administration	<p>Head, Department of Farm Machinery & Power, BCKV</p> <p>In-Charge, Instructional Farm, FAE, BCKV Member, Library Advisory Committee, BCKV</p> <p>In-Charge, CAD-CAM Laboratory, F/ Ag Engg</p> <p>Member, Faculty Placement Cell, FAE, BCKV</p> <p>Member, Joint Admission Committee, BCKV</p>