Dr. Dipankar Chatterjee, PhD

Principal Scientist &
Associate Professor @ AcSIR
CSIR-Central Mechanical Engineering Research Institute

RESEARCH AREAS:

- Computational modeling of fluid flow, heat transfer and species transport in reactive and phase changing systems.
- Numerical simulation of fluid flow and heat transfer over bluff bodies
- Simulation of hydromagnetic flows, electromagnetohydrodynamics and non-Newtonian flows
- Microscale transport and nanofluidics

CORRESPONDENCE DETAILS:

Present Address: Advanced Design and Analysis Group,
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Permanent Address: 23, Ram Chand Ghosh Road,
Post & Vill: Kodalia, Dist: 24 pgs(s)
Kolkata - 700146, India

EDUCATIONAL DETAILS:

Examination	Board/Council/Univ.	% of Marks	Y.O.P.
Ph. D (Engg.)	Indian Institute of Technology, Kharagpur	-	2006
M.E. (Mechanical)	Jadavpur University, Kolkata	85.07%	1999
B.E. (Mechanical)	Jadavpur University, Kolkata.	72.97%	1996
12^{th} Standard	West Bengal Council of Higher Secondary Education	74.30%	1991
10^{th} Standard	West Bengal Board of Secondary Education	78.89%	1989

PROFESSIONAL EXPERIENCES:

Name of the Organization	Designation	Period of Service	Nature of Experience
CSIR-CMERI, Durgapur	Principal Scientist & Associate Professor @ AcSIR	11.11.2013 to date 3.5 Yrs.	Research/Teaching
CSIR-CMERI, Durgapur	Senior Scientist & Assistant Professor @ AcSIR	11.11.2009 to 10.11.2013 04 Yrs.	Research/Teaching
LPMI, Arts et Métiers Paris Tech, France	Post Doctoral Fellow	10.11.2008 to 09.11.2009 01 Yrs.	Research
Indian School of Mines University, Dhanbad	Assistant Professor	04.04.2008 to 31.10.2008 07 Mths.	Teaching/Research
Haldia Institute of Technology, Haldia	Professor	25.07.2007 to 02.04.2008 08 Mths.	Teaching/Research
Future Institute of Engineering and Management, Kolkata	Assistant Professor	14.02.2007 to 24.07.2007 05 Mths.	Teaching/Research
B.P. Poddar Institute of Management and Technology, Kolkata	Assistant Professor	02.08.2005 to 13.02.2007 01 Yrs. 06 Mths.	Teaching/Research
Indian Institute of Technology, Kharagpur	Senior Research Fellow	18.02.2005 to 27.07.2005 05 Mths.	Research
Indian Institute of Technology, Kharagpur	Senior Research Fellow	12.11.1999 to 16.01.2001 01 Yrs. 2 Mths.	Research
Usha Martin Industries Limited (Usha Alloy & Steel Division, Jamshedpur)	Graduate Engineer Trainee	01.07.1996 to 28.06.1997 01 Yrs.	Industrial
Total Experience	15 Yrs.		

PUBLICATIONS:

JOURNAL PUBLICATIONS

Total	SCI	Non-SCI
88	**72**	**16**

- **2017 (Total No.: 6)**

1. Rotation induced flow suppression around two tandem circular cylinders at low Reynolds number, **Dipankar Chatterjee**, Krishan Gupta, Virendra Kumar, Sachin Abraham Varghese (**Fluid Dynamics Research, Accepted**) **SCI**, Citation: 0, IF: 0.846.

2. Numerical Investigation of Transient MHD Mixed Convection in a Ventilated Cavity Containing Two Heated Circular Cylinders, **Dipankar Chatterjee**, Ramgopal Mishra (**Heat Transfer Engineering, Accepted**), **SCI**, Citation: 0, IF: 1.016.

3. Steady mixed convection in power-law fluids from a heated triangular cylinder, Satish Kumar Gupta, Sudipta Ray, **Dipankar Chatterjee** (**Heat Transfer Engineering, Accepted**), **SCI**, Citation: 0, IF: 1.016.

4. MHD Natural Convection in a Square Enclosure with Four Circular Cylinders Positioned at Different Rectangular Locations, **Dipankar Chatterjee**, Satis Kumar Gupta (**Heat Transfer Engineering,** vol. 38, pp. 1449-1465, **2017**), **SCI**, Citation: 0, IF: 1.016.

5. Numerical investigation of convective heat transfer in pipeline flow of multi-sized mono dispersed fly ash-water slurry, Bibhuti Bhusan Nayak, **Dipankar Chatterjee** (**International Journal of Heat and Mass Transfer,** vol. 108, pp. 1802-1818, **2017**). **SCI**, Citation: 0, IF: 2.857.

6. Numerical prediction of flow and heat transfer characteristics of water-fly ash slurry in an 180˚ return pipe bend, Bibhuti Bhusan Nayak, **Dipankar Chatterjee**, Amar Nath Mullick (**International Journal of Thermal Sciences,** vol. 113, pp. 100-115, **2017**), **SCI**, Citation: 0, IF: 2.769.

- **2016 (Total No.: 9)**

7. Unsteady CFD simulation of 3D AUV hull at different angles of attack, Sudipta Ray, **Dipankar Chatterjee**, Sambhunath Nandy (**Journal of Naval Architecture and Marine Engineering**, vol. 13, pp. 111-123, **2016**), **SCI**, Citation: 0, IF:-

8. Transient mixed convection heat transfer around three isothermal square cylinders in cross-flow at low Reynolds numbers, **Dipankar Chatterjee**, Shyama Prasad Das (**Journal of Energy, Heat and Mass Transfer**, **Accepted**), non-SCI, Citation: 0, IF: -.

9. Unconfined hydromagnetic flow and heat transfer around a circular cylinder at low Reynolds numbers, **Dipankar Chatterjee,** Kanchan Chatterjee, Bittagopal Mondal, Nirmal Baran Hui (**CFD Letters, Accepted**), non-SCI, Citation: 0, IF: -.

10. Numerical simulation of convective transport of fly ash-water slurry in horizontal pipe bends, Bibhuti Bhusan Nayak, **Dipankar Chatterjee**, Amar Nath Mullick (**Multiphase Science and Technology**, vol. 27(2-4), pp. 159-186, **2016**), non-SCI, Citation: 0, IF: -.

11. Thermo-magneto-convective transport around a square cylinder in a square duct under strong axial magnetic field, **Dipankar Chatterjee**, Satish Kumar Gupta (**Journal of Applied Fluid Mechanics**, vol. 9(4), **2016**), **SCI**, Citation: 0, IF: 0.505.

12. Numerical Investigation of the Water Droplet Transport in a PEM Fuel Cell with Serpentine Flow Channel, Bittagopal Mondal, **Dipankar Chatterjee** (**Journal of Applied Fluid Mechanics**, vol. 9(3), pp. 1057-1071, **2016**), **SCI**, Citation: 0, IF: 0.505.

13. Effect of Prandtl number and rotation on vortex shedding behind a circular cylinder subjected to cross buoyancy at subcritical Reynolds number, **Dipankar Chatterjee**, Chiranjit Sinha (**International Communications in Heat and Mass Transfer**, vol. 70, pp. 1-8, **2016**), **SCI**, Citation: 0, IF: 2.124.

14. Influence of Aiding Buoyancy on the Suppression of Flow Separation for Power-Law Fluids around a Circular Object, Satish Kumar Gupta, Sudipta Ray, **Dipankar Chatterjee** (**Heat Transfer Engineering**, vol. 37 (15), pp. 1267-1279, **2016**), **SCI**, Citation: 0, IF: 1.016.

15. Magnetoconvective Transport in a Lid-Driven Square Enclosure with Two Rotating Circular Cylinders, **Dipankar Chatterjee**, Pabitra Halder (**Heat Transfer Engineering,** vol. 37(2), pp. 198-209, **2016**), **SCI**, Citation: 1, IF: 1.016.

- **2015 (Total No.: 12)**

16. Numerical analysis of convective transport of fly ash-water slurry through a horizontal pipe, Bibhuti Bhusan Nayak, Satish Kumar Gupta, **Dipankar Chatterjee**, Amar Nath Mullick (**Journal of Computational Multiphase Flows**, vol. 7(2), pp. 79-96, **2015**), non-SCI, Citation: 0, IF: -.

17. Convective transport around rows of square cylinders arranged in a staggered fashion at moderate Reynolds number, **Dipankar Chatterjee**, Satish Kumar Gupta (**Numerical Heat Transfer A,** vol. 68, pp. 388-410, **2015**), **SCI**, Citation: 0, IF: 1.975.

18. Magneto-convective transport of nanofluid in a vertical lid-driven cavity including a heat conducting rotating circular cylinder, Suraj Bansal, **Dipankar Chatterjee** (**Numerical Heat Transfer A,** vol. 68, pp. 411-431, **2015**), **SCI**, Citation: 0, IF: 1.975.

19. MHD flow and heat transfer behind a square cylinder in a duct under strong axial magnetic field, **Dipankar Chatterjee,** Satish Kumar Gupta (**International Journal of Heat and Mass Transfer**, vol. 88, pp. 1-13, **2015**), **SCI**, Citation: 0, IF: 2.522.

20. Convective transport around a rotating square cylinder at moderate Reynolds numbers, **Dipankar Chatterjee**, Satish Kumar Gupta (**Numerical Heat Transfer A,** vol. 67, pp. 1386-1407, **2015**), **SCI**, Citation: 0, IF: 1.975.

21. Forced convection heat transfer in power-law fluids around a semicircular cylinder at incidence, Satish Kumar Gupta, Sudipta Ray, **Dipankar Chatterjee** (**Numerical Heat Transfer A,** vol. 67, pp. 952-971, **2015**), **SCI**, Citation: 0, IF: 1.975.

22. Investigation of Mixed Convection in a ventilated cavity in the presence of a heat conducting circular cylinder, Satish Kumar Gupta, **Dipankar Chatterjee**, Bittagopal Mondal (**Numerical Heat Transfer A,** vol. 67, pp. 52-74, **2015**), **SCI**, Citation: 0, IF: 1.975.

23. Influence of an adiabatic square cylinder on hydrodynamic and thermal characteristics in a two-dimensional backward-facing step channel, **Dipankar Chatterjee**, Amrita Sengupta, Nandini Debnath, Sudipta De (**Heat Transfer Research**, vol. 46, pp. 63-89, **2015**), **SCI**, Citation: 0, IF: 0.477.

24. Mixed convection heat transfer from an equilateral triangular cylinder at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal (**Heat Transfer Engineering**, vol. 36, 123-133, **2015**), **SCI**, Citation: 1, IF: 1.016.

25. Effect of thermal buoyancy on fluid flow and heat transfer across a semicircular cylinder in cross flow at low Reynolds numbers, **Dipankar Chatterjee,** Bittagopal Mondal (**Numerical Heat Transfer A,** vol. 67, pp. 436-453, **2015**), **SCI**, Citation: 0, IF: 1.975.

26. Numerical study of the laminar flow past a rotating square cylinder at low spinning rates, **Dipankar Chatterjee,** Satish Kumar Gupta (**Journal of Fluids Engineering Trans ASME,** vol. 137, pp. 021204, **2015**), **SCI**, Citation: 1, IF: 0.939.

27. Dynamic behavior of flow around rows of square cylinders kept in staggered arrangement, **Dipankar Chatterjee**, Gautam Biswas (**Journal of Wind Engineering and Industrial Aerodynamics,** vol. 136, pp. 1-11, **2015**), **SCI**, Citation: 0, IF: 1.698.

- **2014 (Total No.: 15)**

28. Hydromagnetic Mixed Convective Transport in a Non-isothermally Heated Lid-Driven Square Enclosure including a Heat Conducting Circular Cylinder, **Dipankar Chatterjee**, Satish Kumar Gupta (**Industrial and Engineering Chemistry Research,** vol. 53, pp. 19775–19787, **2014**), **SCI**, Citation: 0, IF: 2.235.

29. Cold flow simulation in underground coal gasification (UCG) cavities, **Dipankar Chatterjee**, Satish Kumar Gupta, Chebolu Aravind, Rakesh Roshan (**Journal of Advanced Thermal Science Research,** vol. 1, pp. 15-24, **2014**), non-SCI, Citation: 0, IF: -.

30. Influence of thermal buoyancy on boundary layer separation over a triangular surface, **Dipankar Chatterjee**, Sudipta Ray (**International Journal of Heat and Mass Transfer,** vol. 79, pp. 769-782, **2014**), **SCI**, Citation: 0, IF: 2.522.
31. Wall confined flow and heat transfer around a square cylinder at low Reynolds and Hartmann numbers, **Dipankar Chatterjee,** Kanchan Chatterjee, Bittagopal Mondal, Nirmal Baran Hui (**Heat Transfer-Asian Research**, vol. 43, pp. 459-475, **2014**), non-SCI, Citation: 0, IF: -.

32. MHD mixed convection in a lid-driven cavity including heat conducting circular solid object and corner heaters with Joule heating, Sudipta Ray, **Dipankar Chatterjee** (**International Communications in Heat and Mass Transfer,** vol. 57, 200-207, **2014**), **SCI**, Citation: 1, IF: 2.124.

33. Dual role of thermal buoyancy in controlling boundary layer separation around bluff obstacles, **Dipankar Chatterjee** (**International Communications in Heat and Mass Transfer,** vol. 56, 152-158, **2014**), **SCI**, Citation: 1, IF: 2.124.

34. Mixed convective transport in a lid-driven cavity containing a nanofluid and a rotating circular cylinder at the center, **Dipankar Chatterjee,** Satish Kumar Gupta, Bittagopal Mondal (**International Communications in Heat and Mass Transfer,** vol. 56, 71-78, **2014**), **SCI**, Citation: 1, IF: 2.124.

35. Computational investigation of transport processes during high energy materials processing application using a hybrid lattice Boltzmann model, **Dipankar Chatterjee** (**American Journal of Heat and Mass Transfer,** vol. 1 No. 2 pp. 52-65, **2014**), non-SCI, Citation: 0, IF: -.

36. Impact of transverse shear on vortex induced vibrations of a circular cylinder at low Reynolds numbers, Satya Prakash Singh, **Dipankar Chatterjee** (**Computers and Fluids**, vol. 93, pp. 61-73, **2014**), **SCI**, Citation: 1, IF: 1.532.

37. MHD mixed convection in a lid-driven cavity including heat conducting solid object and corner heaters with Joule heating, Sudipta Ray, **Dipankar Chatterjee** (**Numerical Heat Transfer A**, vol. 66, pp. 530-550, **2014**), **SCI**, Citation: 3, IF: 1.975.

38. Control of flow separation around bluff obstacles by superimposed thermal buoyancy, **Dipankar Chatterjee**, Bittagopal Mondal (**International Journal of Heat and Mass Transfer**, vol. 72, pp. 128-138, **2014**), **SCI**, Citation: 4, IF: 2.522.

39. MHD Mixed Convective Transport in a Square Enclosure with Two Rotating Circular Cylinders, **Dipankar Chatterjee**, Pabitra Halder (**Numerical Heat Transfer A**, vol. 65, pp. 802-824, **2014**), **SCI**, Citation: 5, IF: 1.975.

40. Hydromagnetic Mixed Convective Transport in a Vertical Lid-Driven Cavity including a Heat Conducting Rotating Circular Cylinder, **Dipankar Chatterjee**, Bittagopal Mondal, Pabitra Halder (**Numerical Heat Transfer A,** vol. 65, pp. 48-65, **2014**), **SCI**, Citation: 8, IF: 1.975.

41. Influence of thermal buoyancy on vortex shedding behind a rotating circular cylinder in cross flow at subcritical Reynolds numbers, **Dipankar Chatterjee**, Chiranjit Sinha (**Journal of Heat Transfer-Trans ASME**, vol. 135, pp. 051704, **2014**), **SCI**, Citation: 8, IF: 1.83.

42. Magnetohydrodynamic flow and heat transfer around a circular cylinder in an unconfined medium, Satish Kumar Gupta, **Dipankar Chatterjee**, Bittagopal Mondal (**International Journal of Advancements in Mechanical and Aeronautical Engineering**, vol. 1(1), pp. 102-106, **2014**), non -SCI, Citation:-, IF: -

- **2013 (Total No.: 10)**

43. Lattice kinetic simulation of buoyancy induced MHD flows, **Dipankar Chatterjee** (**International Journal of Heat and Mass Transfer,** vol. 65, pp. 533-544, **2013**), **SCI**, Citation: 0, IF: 2.522.

44. Magnetoconvective transport in a vertical lid-driven cavity including a heat conducting square cylinder with Joule heating, **Dipankar Chatterjee**, Pabitra Halder, Sinchan Mondal, Supratim Bhattacharjee (**Numerical Heat Transfer A,** vol. 64, pp. 1050-1071, **2013**), **SCI**, Citation: 8, IF: 1.975.

45. Nonlinear amplification of electrokinetic pumping in nanochannels in presence of hydrophobic interactions, Suman Chakraborty, **Dipankar Chatterjee**, Chirodeep Bakli (**Physical Review Letters,** vol. 110, pp. 184503, **2013**), **SCI**, Citation: 3, IF: 7.728.

46. Unconfined flow and heat transfer around a square cylinder at low Reynolds and Hartmann numbers, **Dipankar Chatterjee**, Kanchan Chatterjee (**International Journal of Fluid Mechanics Research**, vol. 40, pp. 71-90, **2013**), non-SCI, Citation: 0, IF: -.

47. Unsteady mixed convection heat transfer from tandem square cylinders in cross flow at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal (**Heat and Mass Transfer,** vol. 49, pp. 907-920, **2013**), **SCI**, Citation: 0, IF: 0.929.

48. MHD Mixed Convection in a Lid-Driven Cavity including a Heated Source, **Dipankar Chatterjee** (**Numerical Heat Transfer A,** vol. 64, pp. 235-254, **2013**), **SCI**, Citation: 9, IF: 1.975.

49. Mixed convection heat transfer past in-line square cylinders in a vertical duct, **Dipankar Chatterjee**, Md. Raja (**Thermal Science,** vol. 17, pp. 567-580, **2013**), **SCI**, Citation: 5, IF: 0.962.

50. Unsteady forced convection heat transfer over semicircular cylinder at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal, Pabitra Halder (**Numerical Heat Transfer A,** vol. 63, pp. 411-429, **2013**), **SCI**, Citation: 9, IF: 1.975.

51. Wall bounded flow and heat transfer around a circular cylinder at low Reynolds and Hartmann numbers, **Dipankar Chatterjee**, Kanchan Chatterjee (**Heat Transfer - Asian Research**, vol. 42, pp. 133-150, **2013**), non-SCI, Citation: 3, IF: -.

52. Mixed convection heat transfer from tandem square cylinders for various gap to size ratios, **Dipankar Chatterjee**, Bittagopal Mondal (**Numerical Heat Transfer A,** vol. 63, pp. 101-119, **2013**), **SCI**, Citation: 4, IF: 1.975.

- **2012 (Total No.: 10)**

53. Control of flow separation around bluff obstacles by transverse magnetic field, **Dipankar Chatterjee**, Kanchan Chatterjee, Bittagopal Mondal (**Journal of Fluids Engineering-Transactions of ASME**, vol. 134, pp. 091102-1, **2012**), **SCI**, Citation: 3, IF: 0.939.

54. Forced Convection heat transfer from an equilateral triangular cylinder at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal (**Heat and Mass Transfer**, vol. 48, pp. 1575-1587, **2012**), **SCI**, Citation: 10, IF: 0.929.

55. A lattice Boltzmann model for high energy materials processing application, **Dipankar Chatterjee** (**International Journal for Multiscale Computational Engineering**, vol. 10(3), pp. 229-247, **2012**), **SCI**, Citation: 2, IF: 0.963.

56. Lattice Boltzmann simulation of heat conduction problems in non-isothermally heated enclosures, Bittagopal Mondal, **Dipankar Chatterjee** (**Heat Transfer-Asian Research**, vol. 41(2), pp. 127-144, **2012**), non-SCI, Citation: 1, IF: -.

57. Effect of Thermal Buoyancy on the two-dimensional Upward Flow and Heat Transfer around a Square Cylinder, **Dipankar Chatterjee**, Bittagopal Mondal (**Heat Transfer Engineering**, vol. 33(12), pp. 1-14, **2012**), **SCI**, Citation: 10, IF: 1.016.

58. Mixed convection heat transfer from an in-line row of square cylinders in cross-flow at low Reynolds number, **Dipankar Chatterjee**, Gautam Biswas, Sakir Amiroudine (**Numerical Heat Transfer A**, vol. 61, 891-911, **2012**), **SCI**, Citation: 5, IF: 1.975.

59. Forced convection heat transfer from tandem square cylinders for various spacing ratios, **Dipankar Chatterjee**, Bittagopal Mondal (**Numerical Heat Transfer A**, vol. 61, 381-400, **2012**), **SCI**, Citation: 5, IF: 1.975.

60. Triggering vortex shedding by superimposed thermal buoyancy around bluff obstacles in cross-flow at low Reynolds numbers, **Dipankar Chatterjee** (**Numerical Heat Transfer A**, vol. 61, pp. 800-806, **2012**), **SCI**, Citation: 11, IF: 1.975.

61. On the vortex shedding mechanism behind a circular cylinder subjected to cross buoyancy at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal (**Computational Thermal Sciences**, vol. 4(1), pp. 23-38, **2012**), non-SCI, Citation: 10, IF: -.

62. Influences of thermal buoyancy on the vortex shedding mechanisms behind a heated circular cylinder at low Reynolds numbers, **Dipankar Chatterjee**, Bittagopal Mondal, Kanchan Chatterjee (**The Bulletin of Engineering and Science**, vol. 4, No. 1, pp. 40-48, **2012**), non-SCI, Citation: 0, IF: -.

- **2011 (Total No: 5)**

63. Effects of Reynolds and Prandtl numbers on flow and heat transfer across tandem square cylinders in the steady flow regime, **Dipankar Chatterjee**, Gautam Biswas (**Numerical Heat Transfer A**, vol. 59, pp. 421-437, **2011**), **SCI**, Citation: 11, IF: 1.975.

64. Computational modeling of transport phenomena in high energy materials processing application: Large Eddy Simulation and Parallelization, **Dipankar Chatterjee** (**International Journal of Computational Materials Science and Surface Engineering,** vol. 4 (1), pp. 1-22, **2011**), non-SCI, Citation: 0, IF: -.

65. Lattice Boltzmann simulation of thermofluidic transport phenomena in a DC magnetohydrodynamic (MHD) micropump, **Dipankar Chatterjee**, Sakir Amiroudine (**Biomedical Microdevices**, vol. 13, pp. 147-157, **2011**), **SCI**, Citation: 6, IF: 2.765.

66. Effect of thermal buoyancy on vortex shedding behind a square cylinder in cross flow at low Reynolds number, **Dipankar Chatterjee**, Bittagopal Mondal (**International Journal of Heat and Mass Transfer**, vol. 54, pp. 5262-5274, **2011**), **SCI**, Citation: 28, IF: 2.522.

67. Numerical simulation of mixed convection heat transfer past in-line square cylinders, Md. Raja, **Dipankar Chatterjee** (**International Journal of Advances in Thermal Sciences and Engineering**, vol. 2, pp. 35-39, **2011**), non-SCI, Citation: 0, IF: -.

- **2010 (Total No: 7)**

68. Mixed convection heat transfer from three heated square cylinders in cross-flow at low Reynolds numbers, **Dipankar Chatterjee**, Shyama Prasad Das (**Heat and Mass Transfer**, vol. 46 (11), pp. 1239-1251, **2010**), **SCI**, Citation: 2, IF: 0.929.

69. Mixed convection heat transfer from tandem square cylinders in a vertical channel at low Reynolds numbers, **Dipankar Chatterjee** (**Numerical Heat Transfer A**, vol. 58: 9, pp. 740-755, **2010**), **SCI**, Citation: 15, IF: 1.975.

70. Lattice Boltzmann simulation of incompressible transport phenomena in macroscopic solidification processes, **Dipankar Chatterjee** (**Numerical Heat Transfer B**, vol. 58, pp. 55-72, **2010**), **SCI**, Citation: 24, IF: 1.172.

71. Lattice kinetic simulation of non-isothermal magnetohydrodynamics, **Dipankar Chatterjee**, Sakir Amiroudine (**Physical Review E**, vol. 81, pp. 066703-1-6, **2010**), **SCI**, Citation: 8, IF: 2.326.

72. Effect of aiding/opposing buoyancy on two-dimensional laminar flow and heat transfer across a circular cylinder, Gurunath Gandikota, Sakir Amiroudine, **Dipankar Chatterjee**, Gautam Biswas (**Numerical Heat Transfer A**, vol. 58: 5, pp. 385-402, **2010**), **SCI**, Citation: 31, IF: 1.975.

73. Two-dimensional mixed convection heat transfer from confined tandem square cylinders in cross-flow at low Reynolds numbers, **Dipankar Chatterjee**, Sakir Amiroudine (**International Communications in Heat and Mass Transfer**, vol. 37, pp. 7-16, **2010**), **SCI**, Citation: 18, IF: 2.124.

74. Numerical simulation of flow past row of square cylinders for various separation ratios, **Dipankar Chatterjee**, Gautam Biswas, Sakir Amiroudine (**Computers and Fluids**, vol. 39, pp. 49-59, **2010**), **SCI**, Citation: 28, IF: 1.532.

- **2009 (Total No: 3)**

75. Numerical investigation of forced convection heat transfer in unsteady flow past a row of square cylinders, **Dipankar Chatterjee**, Gautam Biswas, Sakir Amiroudine (**International Journal of Heat and Fluid Flow**, vol. 30, pp. 1114-1128, **2009**), **SCI**, Citation: 16, IF: 1.777.

76. An enthalpy-based thermal lattice Boltzmann model for non-isothermal systems, **Dipankar Chatterjee** (**Euro Physics Letters**, vol. 86 (1), pp. 14004, **2009**), **SCI**, Citation: 18, IF: 2.269.

77. Entropy generation analysis for the free surface turbulent flow during laser material processing, **Dipankar Chatterjee**, Suman Chakraborty (**International Journal of Numerical Methods for Heat and Fluid Flow**, vol. 19, pp. 303-328, **2009**), **SCI**, Citation: 0, IF: 0.919.

- **2008 (Total No: 1)**

78. An enthalpy-source based lattice Boltzmann model for conduction dominated phase change of pure substances, **Dipankar Chatterjee**, Suman Chakraborty (**International Journal of Thermal Sciences**, vol. 47, pp. 552-559, **2008**), **SCI**, Citation: 22, IF: 2.563.

- **2007 (Total No: 1)**

79. An enthalpy based hybrid lattice Boltzmann method for modeling solid-liquid phase transition in presence of convective transport, Suman Chakraborty, **Dipankar Chatterjee**, (**Journal of Fluid Mechanics**, vol. 592, pp. 155-175, **2007**), **SCI**, Citation: 28, IF: 2.294.

- **2006 (Total No: 4)**

80. A hybrid lattice Boltzmann model for solid-liquid phase transition in presence of fluid flow, **Dipankar Chatterjee**, Suman Chakraborty (**Physics Letters A**, vol. 351, pp. 359-367, **2006**), **SCI**, Citation: 59, IF: 1.626.

81. Effect of process parameters on turbulent transport in a laser surface alloying process, **Dipankar Chatterjee**, Nilanjan Chakraborty, Suman Chakraborty (**Journal of Laser Applications**, vol. 18, pp. 138-150, **2006**), **SCI**, Citation: 3, IF: 1.338.

82. An entropy generation analysis of turbulent transport in a laser surface alloying process, **Dipankar Chatterjee**, Suman Chakraborty (**Material Science and Technology**, vol. 22, pp. 627-633, **2006**), **SCI**, Citation: 1, IF: 0.804.

83. Parallel simulation study of a laser surface alloying process, **Dipankar Chatterjee**, Supriya Sarkar, Suman Chakraborty (**Numerical Heat Transfer A**, vol. 49, pp. 905-922, **2006**), **SCI**, Citation: 7, IF: 1.975.

- **2005 (Total No: 2)**

84. An enthalpy based lattice Boltzmann model for diffusion dominated solid-liquid phase transformation, **Dipankar Chatterjee**, Suman Chakraborty (**Physics Letters A**, vol. 341, pp. 320-330, **2005**), **SCI**, Citation: 59, IF: 1.626.

85. Large eddy simulation of laser induced surface tension driven flow, **Dipankar Chatterjee**, Suman Chakraborty (**Metallurgical Transactions B**, vol. 36 B, pp. 743-754, **2005**), **SCI**, Citation: 8, IF: 1.323.

- **2004 (Total No: 3)**

86. A scaling analysis of turbulent transport in laser surface alloying process, Nilanjan Chakraborty, **Dipankar Chatterjee**, Suman Chakraborty (**Journal of Applied Physics**, vol. 96 (8), pp. 4569-4577, **2004**), **SCI**, Citation: 12, IF: 2.185.

87. Modeling of turbulent transport in laser surface alloying, Nilanjan Chakraborty, **Dipankar Chatterjee**, Suman Chakraborty (**Numerical Heat Transfer A**, vol. 46, pp. 1009-1032, **2004**), **SCI**, Citation: 19, IF: 1.975.

88. Effects of inlet air swirl and spray cone angle on combustion and emission performance of a liquid fuel spray in a gas turbine combustor, **Dipankar Chatterjee**, A. Datta, A.K. Ghosh, S.K. Som (**Journal of The Institution of Engineers (India): Series C**, vol. 85, pp. 41-46, **2004**), non-SCI, Citation: 11, IF: -.

Communicated/Under Review

89. Rotation induced flow suppression around a circular cylinder, **Dipankar Chatterjee**, Satish Kumar Gupta, Sudipta Ray (**CFD Letters**).

90. An effective numerical strategy for modeling high energy laser surface alloying process, **Dipankar Chatterjee** (**Frontiers in Mechanical Engineering: Thermal and Mass Transport**).

91. Mixed convective transport around staggered rows of square cylinders, **Dipankar Chatterjee**, Saugata Patra, Bittagopal Mondal (**Journal of Energy, Heat and Mass Transfer**).

92. Computational Modeling of Gas-Bubble Formation through a Single Submerged Orifice, Vijay Kumar Prasad, Satya Prakash Singh, **Dipankar Chatterjee** (**International Journal of Fluid Mechanics Research**)

93. Numerical Simulation of Gas-Bubble Formation through Two Adjacent Submerged Orifices, Vijay Kumar Prasad, **Dipankar Chatterjee**, Satya Prakash Singh (**Fluid Dynamics Research**)

94. Convective Heat Transfer in Slurry Flow in a Horizontal Y-Shaped Branched Pipe, Bibhuti Bhusan Nayak, **Dipankar Chatterjee** (**Powder Technology**)

95. Assessment of mixture and Eulerian multiphase models in predicting the thermo-fluidic transport characteristics for fly ash-water slurry flow in straight horizontal pipeline, Bibhuti Bhusan Nayak, **Dipankar Chatterjee** (**Heat Transfer Engineering**)

CONFERENCE PUBLICATIONS

Total	National	International
38	**16**	**22**

- **2017 (Total No: 1)**

1. स्थिर तथा सहवहन तरल माध्यम में गैस बुलबुला के गठन की सीएफडी (CFD) मॉडलिंग, विजय कुमार प्रसाद , **दीपांकर चैटर्जी**, सत्या प्रकाश सिंह , **मेक इन इंडिया' विषय पर राष्ट्रीय हिंदी संगोष्ठी सह प्रदर्शनी, फेब्रुवारी 26-27, 2017, सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुशंधान संस्थान, दुर्गापुर, भारत**

2. Mathematical Modelling of Underground Coal Gasification (UCG) Process: A Review, **Dipankar Chatterjee**, **International Conference on NexGen Technologies for Mining & Fuel Industries (NxGnMiFu-2017), February 15-17, 2017, Vigyan Bhawan, New Delhi, India.**

- **2016 (Total No: 3)**

3. A Comparative Study on Flow and Heat transfer Phenomena of Fly ash-Water Slurry in Horizontal Pipe Bends, Bibhuti Bhusan Nayak, Amar Nath Mullick, **Dipankar Chatterjee, Proceedings of the 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power, December 15-17, 2016, MNNITA, Allahabad, U.P., India**.

4. Modelling of Powder Stream Dynamics Using Lagrangian-Eulerian Approach in Direct Metal Deposition Process, Piyush Pant, **Dipankar Chatterjee,** Sudip Kumar Samanta,

Titas Nandi, Aditya Kumar Lohar, **Proceedings of the 6th International and 43rd National Conference on Fluid Mechanics and Fluid Power December 15-17, 2016, MNNITA, Allahabad, U.P., India**.

5. CFD modelling of gas bubble formation in a stagnant & co-flowing liquid medium, Vijay Kumar Prasad, Satya Prakash Singh, Dipankar Chatterjee, **6th International Congress on Computational Mechanics and Simulation (ICCMS2016), June 27- July 1, 2016, Indian Institute of Technology Bombay (IITB), India**

- **2015 (Total No: 3)**

6. Numerical simulation of turbulent forced convection heat transfer and particle distribution of Fly ash-water slurry flow in horizontal pipe bends and straight pipes, Bibhuti Bhusan Nayak, **Dipankar Chatterjee**, Amar Nath Mullick, **60th Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM) (An International Conference), December 16-19, 2015, Malaviya National Institute of Technology Jaipur, India**.

7. भूमिगत कोयला गैसीकरण (अंडरग्राउंड कोल गैसिफिकेशन-यूसीजी) में कैविटी वृद्धि की मॉडलिंग, **दीपांकर चटर्जी**, सत्य प्रकाश सिंह, **भारत में कोयला आधारित गॅस उद्योग की चुनोतियाँ एवं विकल्प राजभसा हिन्दी मे आयोजित एक दिवसया राष्ट्रीय संगोष्ठी, 11 मई 2015, सीएसआईआर - केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान, धनबाद, भारत**

8. Numerical analysis of Goldschmied geometry with boundary-layer suction, Sudipta Ray, Soumen Sen, **Dipankar Chatterjee**, **International Symposium on Underwater Technology (UT15), February 23-25, 2015, National Institute of Ocean Technology, Chennai, India.**

- **2014 (Total No: 2)**

9. Numerical investigations of heat transfer between wall and water-fly ash slurry flow in horizontal pipes, Bibhuti Bhusan Nayak, Amar Nath Mullick, Satish Kumar Gupta, **Dipankar Chatterjee**, **5th International and 41st National Conference on Fluid Mechanics and Fluid Power (FMFP 2014), December 12-14, 2014, IIT Kanpur, India**.

10. Modelling turbulent transport in high energy materials processing application: large eddy simulation and parallelization, **Dipankar Chatterjee**, **National Conference on Emerging Trends in Physics of Fluids & Solids (NCETPFS – 2014), March 06-07, 2014, Jadavpur University, Kolkata, India.**

- **2013 (Total No: 7)**

11. Low-dimensional chaos for flow past staggered rows of square cylinders, **Dipankar Chatterjee**, Bittagopal Mondal, Gautam Biswas, **Energy System Modeling and Optimization Conference (ESMOC 2013), December 9-11, 2013, NIT Durgapur, India.**

12. Magnetoconvective transport in a vertical lid-driven cavity in presence of a heat conducting rotating circular cylinder, Kanchan Chatterjee, **Dipankar Chatterjee**, Nirmal Baran Hui, Bittagopal Mondal, **Energy System Modeling and Optimization Conference (ESMOC 2013), December 9-11, 2013, NIT Durgapur, India.**

13. Magnetohydrodynamic flow and heat transfer around a circular cylinder in an unconfined medium, Satish Kumar Gupta, **Dipankar Chatterjee**, Bittagopal Mondal, **International Conference On Future Trends In Structural, Civil, Environmental and Mechanical Engineering - FTSCEM, July 13-14 , 2013, Bangkok, Thailand.**

14. Multiscale Modeling of Transport Phenomena during High Energy Materials Processing Applications, **Dipankar Chatterjee**, Shantanu Dey**, 61st Indian Foundry Congress, January 27-29, 2013, Kolkata, India.**

15. Numerical Simulation of Flow around a Three-Wheeled Vehicle, Ajoy Kuchlyan, Santanu Dey, **Dipankar Chatterjee,** Palash Kumar Maji, **National Conference on Mechanical Engineering : Retrospect and Prospect (NCMERP - 2013), February 2-3, 2013, Birbhum Institute of Engineering & Technology (BIET), Suri, Birbhum, India.**

16. Hydromagnetic Mixed Convection in a Vertical Lid-Driven Cavity including a Heat Conducting Rotating Circular Cylinder, Bittagopal Mondal, Pabitra Halder, **Dipankar Chatterjee**, **National Conference on Mechanical Engineering : Retrospect and Prospect (NCMERP - 2013), February 2-3, 2013, Birbhum Institute of Engineering & Technology (BIET), Suri, Birbhum, India.**

17. Flow and heat transfer around a square cylinder at low Reynolds and Hartmann numbers, **Dipankar Chatterjee**, Kanchan Chatterjee, Chiranjit Sinha, **National Conference on Mechanical Engineering : Retrospect and Prospect (NCMERP - 2013), February 2-3, 2013, Birbhum Institute of Engineering & Technology (BIET), Suri, Birbhum, India.**

- **2012 (Total No: 1)**

18. Thermohydrodynamic simulation of a DC (direct current) magnetohydrodynamic (MHD) micropump, **Dipankar Chatterjee**, **International Conference on Microactuators and Micromechanisms, January 19-20, 2012, CSIR-CMERI, Durgapur, India.**

- **2011 (Total No: 6)**

19. Numerical Simulation of Mixed Convection Heat Transfer past In-Line Square Cylinders, Md. Raja**, Dipankar Chatterjee**, **5th International Conference on Advances in Mechanical Engineering, June 06-08, 2011, Sardar Vallabhbhai National Institute of Technology, Surat, India.**

20. Water Droplet Transport Simulation in Serpentine Gas Flow Channel of PEM Fuel Cell**,** Bittagopal Mondal, **Dipankar Chatterjee**, Md. Raja**, 11th Asian International Conference on Fluid Machinery, Nov. 21-23, 2011, IIT Madras, Chennai, India.**

21. MHD flow and heat transfer around a square cylinder at low Reynolds numbers, **Dipankar Chatterjee,** Kanchan Chatterjee, Nirmal Baran Hui, **The International Congresses on Theoretical and Applied Mechanics, December 12-16, 2011, IIT Kanpur, India.**

22. Vortex degeneration due to thermal buoyancy effect for upward flow around bluff obstacles, **Dipankar Chatterjee,** Bittagopal Mondal, Gautam Biswas**, 21st National & 10th International ISHMT-ASME Heat and Mass Transfer Conference, Dec. 27-30, 2011, IIT Madras, Chennai, India.**

23. A computational study on pollutant generation in a gas turbine combustor, **Dipankar Chatterjee,** Abhishek Mandal, Pradip Kumar Chatterjee, **21st National & 10th International ISHMT-ASME Heat and Mass Transfer Conference, Dec. 27-30, 2011, IIT Madras, Chennai, India.**

24. Forced convection heat transfer around a circular cylinder subjected to streamwise and transverse magnetic fields at low Reynolds numbers, **Dipankar Chatterjee,** Kanchan Chatterjee, Nirmal Baran Hui, **21st National & 10th International ISHMT-ASME Heat and Mass Transfer Conference, Dec. 27-30, 2011, IIT Madras, Chennai, India.**

- **2010 (Total No: 3)**

25. Vibrational instabilities in supercritical fluids, **D. Chatterjee**, S. Amiroudine, D. Beysens, **20th National & 9th International ISHMT-ASME Heat and Mass Transfer Conference, January 4-6, 2010, IIT Bombay, Mumbai, India.**

26. Lattice Boltzmann Simulation of Laser Surface Melting Process, **Dipankar Chatterjee**, **Workshop on Application of Laser in Mechanical Industries and Seminar on Application of Laser in Materials Processing, 7-9 January, 2010, Jadavpur University, Kolkata, India.**

27. Lattice Boltzmann simulation of transport phenomena in high power materials processing application, **Dipankar Chatterjee**, **5th International Conference on Theoretical, Applied, Computational and Experimental Mechanics, 27-29 December, 2010, IIT Kharagpur, India.**

- **2008 (Total No: 2)**

28. A novel thermal lattice Boltzmann model for non-isothermal systems, **Dipankar Chatterjee**, Suman Chakraborty**, 19th National & 8th International ISHMT-ASME Heat and Mass Transfer Conference, January 3 - 5, 2008, Jawaharlal Nehru Technological University (JNTU) College of Engineering, Hyderabad, India.**

29. Numerical Investigations of Laser-Induced Surface-tension Driven Flows by an Axisymmetric Lattice Boltzmann Model, **Dipankar Chatterjee**, Suman Chakraborty, **Workshop on Advanced Laser Manufacturing, 17-18 January, 2008, Jadavpur University, Kolkata, India.**

- **2006 (Total No: 3)**

30. A lattice Boltzmann method for solid-liquid phase transition modeling, **Dipankar Chatterjee**, Suman Chakraborty; **18th National & 7th International ISHMT-ASME Heat and Mass Transfer Conference, January 4 - 6, 2006, IIT Guwahati, India.**

31. Turbulence modeling strategies for molten pool convection in laser aided surface processing of materials, S. Chakraborty, N. Chakraborty, **D. Chatterjee**, S. Sarkar, **Workshop on Advanced Laser Manufacturing, February, 2006, Jadavpur University, Kolkata, India.**

32. A Novel Thermal Lattice Boltzmann Model For Fluid Dynamic Application, **Dipankar Chatterjee**, **in Recent Trends in Emerging Technologies, February, 2006, B.P. Poddar Institute of Management & Technology, Kolkata, India.**

- **2004 (Total No: 2)**

33. Large eddy simulation in a laser surface melting process, **Dipankar Chatterjee**, Amit Kumar Ghosh, Suman Chakraborty; **Workshop on Advanced Laser Manufacturing, February, 2004, Jadavpur University, Kolkata, India.**

34. Mathematical Model of NO_x Formation for the Turbulent Diffusion Flame in a Gas Turbine Combustor, **Dipankar Chatterjee**, Swasti S. Mondal, **31st National Conference on Fluid Mechanics and Fluid Power, December, 2004, Jadavpur University, Kolkata, India.**

- **2003 (Total No: 3)**

35. Effect of inlet air swirl and spray cone angle on combustion and emission performance of a spray combustion process in gas turbine combustor, **Dipankar Chatterjee**, A. Datta, S.K. Som, A.K. Ghosh; **Seventeenth National Convention of Aerospace Engineers and National Seminar on Indian Aerospace Vehicles; November, 2003, BIT Meshra, Ranchi, India.**

36. Effects of various turbulence models on the overall solidification behavior of a pure substance in a top cooled rectangular cavity, **Dipankar Chatterjee**, Suman Chakraborty; **Fluent User Conference; November, 2003, Pune, India.**

37. Modeling of turbulent transport in laser surface alloying, Nilanjan Chakraborty, **Dipankar Chatterjee**, Suman Chakraborty; **ASME International Mechanical Engineering Conference and R&D Expo; November, 2003, Washington D.C., USA.**

- **2002 (Total No: 1)**

38. Effect of inlet air swirl on flow and NO_x formation in a gas turbine combustor, **Dipankar Chatterjee**, A. Datta, S.K. Som, A.K. Ghosh; **5th Annual Symposium on CFD; August, 2002, Bangalore, India**.

TECHNICAL REPORT

1. Computational modeling of transport phenomena in high energy materials processing application: large eddy simulation and parallelization, **Dipankar Chatterjee**, Project Report submitted to DST, Project No. GAP 097412, 2014.

2. Two-layer electroosmotic flows in microchannels under time periodic electrical fields, **Dipankar Chatterjee**, Project Report submitted to CSIR-CMERI, Project No. OLP 160612, 2013.

3. Study of the dynamics of gas-bubble in a flowing liquid environment, Satya Prakash Singh, **Dipankar Chatterjee**, Project Report submitted to CSIR-CMERI, Project No. OLP 160712, 2013.

4. Numerical study of water droplet mobility in serpentine gas flow channel of PEM fuel cell, Bittagopal Mondal, **Dipankar Chatterjee**, Project Report submitted to CSIR-CMERI, Project No. OLP 161212, 2013.

5. Computational modeling of fluid flow and heat transfer around fixed and/or moving objects, Pabitra Halder, **Dipankar Chatterjee**, Project Report submitted to CSIR-CMERI, Project No. OLP 201112, 2013.

TALK DELIVERED

1. Computational studies for UCG in India, **Dipankar Chatterjee**, **Invited Lecture** in the **Two-Day Workshop on Challenges and Opportunities of Underground Coal Gasification in India (UCG-2017) at Vigyan Bhawan, New Delhi, February 13-14, 2017**.

2. Control of Boundary Layer Separation around Bluff Obstacles, **Dipankar Chatterjee**, **Keynote address in Energy System Modeling and Optimization Conference (ESMOC 2013), December 9-11, 2013, NIT Durgapur, India.**

3. Mathematical Modeling and Numerical Simulation of High Power Laser Assisted Manufacturing Processes, **Dipankar Chatterjee**, **Expert lecture** under the aegis of TEQUIP II project, **September 23, 2013, Indian School of Mines University, Dhanbad, India.**

4. Influence of thermal buoyancy on vortex shedding behind bluff obstacles**, Dipankar Chatterjee**, **Janury 16, 2013, IIT Kharagpur, India.**

5. (a) Bluff body hydrodynamics: CFD simulation (b)Lattice Boltzmann method: an alternative to conventional CFD, **D. Chatterjee**, **Invited Speaker** for the refresher course on "***Recent Advances and Trends in Applications of Computational Fluid Dynamics (CFD) in Engineering***", **June 18-July 7, 2012, Jadavpur University, Kolkata, India.**

6. Research Methodology: A Journey into Science, Engineering & Technology, **Dipankar Chatterjee**, **Keynote address in the Workshop on "Research Competency", Bankura Unnayani Institute of Engineering (BUIE), September 22, 2012, Bankura, India.**

7. Application of CFD for bluff body flow simulation, **Dipankar Chatterjee**, **Keynote address in the Workshop on "Computational Fluid Dynamics and its Application", Birbhum Institute of Engineering & Technology (BIET), November 4, 2012, Suri, Birbhum, India.**

8. Lattice Boltzmann Method: Towards an advanced modeling strategy for high energy material processing applications, **D. Chatterjee**, **Symposium on Transport Phenomena and its Impact on Advanced Material Processing Technologies, December 8-9, 2009, CMERI, Durgapur, India.**

BOOKS AUTHORED

1. "Mechanical Sciences – II (Thermodynamics & Fluid Mechanics)", **Dr. Dipankar Chatterjee**, Mr. Subhajit Datta, **SCI Tech Publications, Chennai, 2010**.

2. Lattice Boltzmann Modeling for Melting/Solidification Processes [Chapter 7, pp. 129-152], **Dr. Dipankar Chatterjee,** in "**Hydrodynamics**: Optimizing Methods and Tools" Ed. Harry Edmar Schulz, **INTECH, Croatia, 2011.**

3. Lattice-Boltzmann Methods for Phase-Changing Flow [Chapter 10, pp. 303-338], **Dr. Dipankar Chatterjee, in "Microfluidics and Microscale Transport Processes" Ed. S. Chakraborty, CRS Press, Taylor and Francis Group, 2012.**

SPONSORED PROJECTS:

Sl. No.	Title of the Project	Budget	Duration	Funding Agency	Current Status
1.	Two-layer electroosmotic flows in microchannels under time periodic electrical fields [Project No. **OLP 160612**] **Role: Principal Investigator**	36.56 Lacs	3 years	CSIR-CMERI	**Successfully Completed** Start date: **15/06/2010** End date: **14/06/2013**
2.	Computational modelling of transport phenomena in high energy materials processing application: large eddy simulation and parallelization [Project No. **GAP 097412**] **Role: Principal Investigator**	19.709 Lacs	3 years	DST	**Successfully Completed**, Start date: **19/09/2011** End date: **31/03/2014**
3.	Development of underground coal gasification technology in India(CoalGasUrja) (Mathematical Modelling and Simulation Studies of Underground Coal Gasification (UCG) Process) [Project No. **ESC 0302**] **Role: Project Leader from CSIR-CMERI**	85.90 Lacs	5 Years	CSIR (Under 12th Five Year Plan) Nodal Lab: CSIR-CIMFR	**Ongoing** Start Date: **01/04/2012** End Date: **31/03/2017**

4.	Study of the dynamics of gas-bubble in a flowing liquid environment [Project No. **OLP 160712**] **Role: Co-Investigator**	34.20 Lacs	3 Years	CSIR-CMERI	**Successfully Completed** Start date: **15/06/2010** End date: **14/06/2013**
5.	Numerical study of water droplet mobility in serpentine gas flow channel of PEM fuel cell [Project No. **OLP 161212**] **Role: Co-Investigator**	24.00 Lacs	3 Years	CSIR-CMERI	**Successfully Completed** Start date: **01/04/ 2011** End date: **31/03/2014**
6.	Computational modelling of fluid flow and heat transfer around fixed and/or moving objects [Project No. **OLP 201112**] **Role: Co-Investigator**	28.95 Lacs	3 Years	CSIR-CMERI	**Successfully Completed** Start date: **10/03/ 2011** End date: **09/03/2014**
7.	Modelling Fish Locomotion in Turbulent Vortices [Sanction Letter No. **IIT/SRIC/ME/INV/2013-14**] Under **ESC 0113** **Role: Co-Investigator**	18.00 Lacs	3 years	CSIR-CMERI	**Successfully Completed** Start Date: **05/10/2013** End Date: **04/10/2016**
8.	Rheo Pressure Die casting of JIS ADC 12 Aluminium alloy [Project No. **SSP 121712**] **Role: Co-Project Leader**	26.10 Lacs	15 Months	M/S Sona Koyo Steering Systems Ltd., Gurgaon	**Successfully Completed** Start Date: **Nov. 2014** End Date: **Sep 2016**
9.	Autonomous underwater robotics (UnWar) [Project No. **ESC 0113**] **Role: Team Member**	4000.93 Lacs	5 Years	CSIR (Mega Project Under 12th Five Year Plan) Nodal Lab: CSIR-CMERI	**Ongoing** Start Date: **01/04/2012** End Date: **31.03.2017**
10.	Exploring depth of available Groundwater in 51 plots of different mouza under Jamuria, Kulti, Salanpur and Barabani [Project No. **TSP 1058**] **Role: Co-Project Leader**	28.69 Lacs	1 Year	ADDA	**Ongoing** Start Date: **01/07/2016** End Date: **01/07/2017**

11.	Conducting Step Drawdown Well Pumping Test, Aquifer Performance Test and check for quality of water in four plots at Bijoynagar Mouza under Jamuria P.S [Project No. **TSP1074**] **Role: Co-Project Leader**	17.96 Lacs	6 Months	Housing Department Government of West Bengal	**Ongoing** Start Date: **27/01/2017** End Date: **27/01/2018**
12.	Design of hydraulic components of smart pump [Project No. **GAP215112**] **Role: Co-Project Leader**	22.50 Lacs	1 Year	DHI	**Ongoing** Start Date: Feb 2017 End Date: Jan 2018

REVIEWS

1. Reviewer of the book "**Gas Turbines**" by V. Ganesan.

2. Reviewer of the book chapter "Lattice Boltzmann Method and Its Applications in Microfluidics" by Junfeng Zhang of **Microfluidics Nanofluidics Handbook** from CRC Press/Taylor & Francis Group, LLC.

3. **Reviewer of the Following Journals**:

- Advances in Space Research;
- Aerospace Science and Technology;
- AIChE;
- Ain Shams Engineering Journal;
- American Journal of Heat and Mass Transfer;
- Applied Bionics and Biomechanics
- Applied Mathematical Modelling;
- Applied Thermal Engineering;
- Biomicrofluidics;
- Chemical Engineering & Technology;
- Chemical Engineering Science;
- Computers and Fluids;
- Defence Science Journal;
- Energy;
- Experimental Thermal and Fluid Science;
- Fusion Engineering and Design;
- Heat and Mass Transfer;
- Heat Transfer - Asian Research;
- Heat Transfer Engineering;

- Heat Transfer Research;
- Industrial and Engineering Chemistry Research;
- International Communications in Heat and Mass Transfer;
- International Journal of Heat and Mass Transfer;
- International Journal of Numerical Methods for Heat and Fluid Flow;
- International Journal of Thermal Sciences;
- Iranian Journal of Science and Technology;
- Journal of Applied Fluid Mechanics;
- Journal of Applied Mathematics;
- Journal of Applied Mechanical Engineering;
- Journal of Computational Physics;
- Journal of Fluids and Structures;
- Journal of Fluids Engineering - Transactions of ASME;
- Journal of Heat Transfer - Transactions of ASME;
- Journal of Institution of Engineers (C);
- Journal of Mechanical Engineering Science: Part C;
- Journal of the Taiwan Institute of Chemical Engineers;
- Journal of Thermophysics and Heat Transfer;
- Korea-Australia Rheology Journal;
- Korean Journal of Chemical Engineering;
- Meccanica;
- Numerical Heat Transfer A;
- Physics Letters A;
- PLOS ONE;
- Powder Technology;
- Proceedings of the National Academy of Sciences, India Section A: Physical Sciences;
- Progress in Computational Fluid Dynamics;
- Scientica Iranica;
- Scientific Reports;
- The Scientific World Journal;
- Thermal Science;

4. MTech Thesis Review:

- "Surface reconstruction using neural network B-spline method", Ahmad Najam saquib, National Institute of Technology Durgapur, Durgapur-713209, 2013.
- "Numerical study of shock/shock interaction in hypersonic double wedge flows", Rahul Bandlas, Indian Institute of Engineering Science and Technology, Shibpur, 2015.
- "Numerical simulation of convective heat transfer in square cavity utilizing nanofluids", Saurabh Gupta, Indian Institute of Engineering Science and Technology, Shibpur, 2015.

5. **PhD Thesis Review**:

- "Methodology for Improvement of Fin Performance and Optimum design Parameters for Electronic Cooling", Dipankar Bhanja, Jadavpur University, Kolkata-32, 2013.

- "Investigation on Some Aspects of Through Transmission Laser Welding of Plastics", John Deb Barma, Jadavpur University, Kolkata-32, 2013.

- "Some flow problems in Newtonian or non-Newtonian fluids having heat and mass transfer phenomena", Raju Haldar, Jadavpur University, Kolkata-32, 2013.

- "On some aspects of performance of cylindrical grinding process through experiments and analyses", Ramesh Rudrapati, Jadavpur University, Kolkata-32, 2014.

- "Vortex Evolution and Heat Transfer Enhancement in a Quasi-Two-Dimensional Magnetohydrodynamic Duct Flow", Ahmad Hussein Abdul Hamid, Monash University, Australia, 2016.

- "Retrieval of Parameters in Heat and Mass Transfer Problems using Inverse Optimization", Rohit Kumar Singla, IIT Ropar, 2016.

JOURNAL EDITORSHIP

- ✓ **Associate Editor** of "**Frontiers in Mechanical Engineering (Thermal and Mass Transport)**", 2015.

- ✓ **Associate Editor** of "**Journal of Advances in Mechanical Engineering and Science**", 2015.

- ✓ **Editorial Board Member** of "**Journal of Advanced Thermal Science Research**", 2014.

- ✓ **Editorial Board Member** of "**American Journal of Heat and Mass Transfer**", 2013.

STUDENT GUIDANCE

PhD

1. Kanchan Chatterjee, "**Hydromagnetic Flow and Heat Transfer around Bluff Obstacles at Low Reynolds Numbers**", National Institute of Technology, Durgapur, October, 2013.

2. Bibhuti Bhusan Nayak, "**Numerical Study on the Thermo-Fluidic Transport of Fly Ash-Water Slurry in Horizontal Pipelines**", National Institute of Technology, Durgapur (Undergoing)

3. Santanu Dey, "**Flow Characteristics over Double Delta Wing**", AcSIR (Undergoing)

4. Piyush Pant, "**Design and development of multimaterial deposition**", Jadavpur University (Undergoing)

5. Vijay Kumar Prasad, "**Understanding the efficacy of using micro-bubbles for targeted drug delivery**", AcSIR (Undergoing)

M-TECH

1. Debabrata Das, "**Designing a Simulation Model for Hydro-pneumatic Suspension System**", National Institute of Technology, Durgapur, 2013.

2. Ramgopal Mishra, "**Numerical Investigation of Transient Mixed Covective Transport in a Square Enclosure Containing Heated Cylinders**", National Institute of Technology, Durgapur, 2016.

AWARDS & HONOURS:

1. Recipient of the Merit Certificate of **All India Science Talent Search Examination** (AISTSE)-1986.
2. Recipient of the **National Merit Scholarship,** 1989.
3. Recipient of the **GATE** (**Graduate Aptitude Test in Engineering**) Fellowship-1996.
4. Recipient of the **Post Doctoral Fellowship** from Arts et Métiers Paris Tech, France-2008.
5. Selected in the **Marquis Who's Who in the World** 2010.
6. Recipient of the **Metallurgist for the year 2011-12** by **Indian Institute of Metals Durgapur Chapter** for the Contribution in "Computational Fluid Dynamics in Materials Processing Applications", 2012.
7. **Visiting Faculty** at National Institute of Technology Durgapur 2015.