

Resume of

**Dr. Md. Rakib Hossain**

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**Academic Records**

▪ **PhD in Civil and Environmental Engineering**

Title : Reconstructing Flow from Thermal Wall Imprints  
Institute : Imperial College London, United Kingdom

▪ **Masters of Science, M.S.**

Subject : Applied Mathematics  
Institute : University of Dhaka  
Result : First class  
Position : First

▪ **Bachelor of Science, B.Sc.**

Subject : Mathematics  
Institute : University of Dhaka  
Result : First class  
Position : First

**Research Experiences/Internship**

- Attained internship experience on the topic entitled "Fluid Dynamics and Numerical Simulation Models in Porous Media of Fuel Cell" under the supervision of Prof. Dr. Nobuyoki Oshima in **Hokkaido University, Japan.**

**Publications:**

- **Md Rakib Hossain**, John Craske and Maarten Van Reeuwijk, *Reconstructing wall shear stress from thermal imprints*, International Journal of Heat and Fluid Flow, <https://doi.org/10.1016/j.ijheatfluidflow.2022.108976>.
- **M. R. Hossain**, Touhid Hossain and Md. Mamun-Ur-Rashid Khan, *A generalization on the solution of the second order ordinary linear boundary value problem by the finite element method*, IOSR Journal of Mathematics (IOSR-JM), vol.14, no.2, pp.55-60, 2018.

- GM Fahad Bin Mostofa, **Md. Rakib Hossain** and M. A. Samad, *Numerical study of unsteady mass motion flow of power law fluid along a vertical plate with the effect of viscous dissipation and low magnetic field*, American Journal of Aerospace Engineering, vol.4, no.4 Science Publishing Group, pp.38-53, 2018.
- Md. Mamun-Ur-Rashid Khan, **M. R. Hossain** and Selina Parvin, *Numerical Integration Schemes for Unequal Data Spacing*, American Journal of Applied Mathematics, vol.5, no.2 Science Publishing group, pp.48-56, 2017.
- Fahad B. Mostafa, M.A. Samad and **M. R. Hossain**, *Combined effect of viscous dissipation and radiation on unsteady free convective non-Newtonian fluid along a continuously moving vertically stretched surface with no-slip phenomena*, American Journal of Computational and Applied Mathematics, vol.7, no.3 Scientific & Academic Publishing, pp.71-79, 2017.
- Shirin Provat, **M. R. Hossain** and M. A. Samad, *Effect of radiation and heat generation on unsteady MHD flow of non-Newtonian fluid along a stretching vertical surface*, GANIT J. Bangladesh Math. Soc., vol.36 Bangladesh Mathematical Society, pp.7-17, 2016.
- Salma Jahan, **M. R. Hossain** and M. A. Samad, *Unsteady free convection flow of non-Newtonian fluid along a continuously moving stretching sheet with heat generation and radiation*, Journal of Physics and Research (JPR) , vol.1 , no.2 TRANSSTELLER , pp.1-8 , 2015.
- K. C. Saha, M.A. Samad and **M. R. Hossain**, *Effect of Viscous Dissipation on MHD Free Convection Flow of Heat and Mass Transfer of Non-Newtonian Fluids along a Continuously Moving Stretching Sheet*, Research Journal of Applied Sciences, Engineering and Technology 9(12): 1058-1073, 2015.
- M.A. Samad and **M. R. Hossain**, *Effects of Radiation and Heat Generation/Absorption on MHD Free Convective Heat Transfer of Power-Law Non-Newtonian Fluids Along a Power-Law Stretching Sheet with Uniform Surface Heat Flux*, Research Journal of Applied Sciences, Engineering and Technology 5(2): 519-530, 2013.
- M. A. Samad, **M. R. Hossain** and D. Kumar, *Effect of Radiation on Free Convection Flow of Non-Newtonian Power-Law Fluids along a Power-Law Stretching Sheet*, The Dhaka University Journal of Science 61(1): 97-104, 2013.

- M. A. Samad, D. Kumar and **M. R. Hossain**, *MHD Forced Convective Flow of Non-Newtonian Power Law Fluid Past a Continuously Moving Power Law Stretching Surface in Presence of Radiation and Heat Generation/Absorption with Uniform Surface Heat Flux*, The Bangladesh Journal of Scientific Research 25(2):111-123(2012).

### **Teaching Experiences**

- From September 2022 (Ongoing): Associate Professor, Department of Applied Mathematics, University of Dhaka.
- From February 2016 to September 2022: Assistant Professor, Department of Applied Mathematics, University of Dhaka.
- From July 2014 to February 2016: Lecturer, Department of Applied Mathematics, University of Dhaka.
- From October 2012 to June 2014: Lecturer, Department of Mathematics, University of Dhaka.

### **Taught Courses**

- Mathematical modelling for Machine Learning
- Environmental Fluid Mechanics
- Elementary Hydrology
- Hydrodynamics and Coastal Hydraulics
- Theory of Numbers
- Calculus
- Fundamentals of Mathematics
- Discrete Mathematics
- Programming language courses (MATHEMATICA, MATLAB, FORTRAN)

### **Supervision**

- Undergraduate project : 16
- M.S. Thesis : 03

### **Research Grants/projects**

- Bose Centre for Advanced Study and Research in Natural Sciences 2022.
- Dhaka University Centennial Research Grant 2022.

### **Awards**

- Commonwealth Scholarship 2016 for pursuing PhD in Civil and Environmental Engineering, Imperial College London.
- "Prime Minister Gold Medal-2010", for obtaining the highest score in the

Faculty of Science in B.Sc. (Hons.) Examination, 2008.

- Awarded “Dean Award-2008” from the honorable Dean, Faculty of Science, University of Dhaka.
- University Grants Commission (UGC) Merit Scholarship, 2008.
- Awarded “A.F. Mojibur Rahman Gold Medal-2008” for excellence in Mathematics and related research.
- Awarded “A.F. Mojibur Rahman Gold Medal-2009” for the excellence in M.S. (Applied Mathematics).
- Dr. S. A. Salam Memorial Scholarship Highest marks in BS (Hons.) Mathematics.
- Mitra Yousuf Trust Fund Scholarship 2007 for Highest marks in Third year BS (Hons.) examination
- Begum Hasina Siddiqui Trust Fund 2006 for Highest marks in Second year BS (Hons.) examination.
- Jobeda Jofir Trust Fund Scholarship for Highest marks in First year BS (Hons.) examination.

## **References**

- Dr. Maarten Van Reeuwijk, Reader, Department of Civil & Environmental Engineering, Imperial College London, United Kingdom.
- Dr. Md. Abdus Samad, Dean of the Faculty of Science and Professor of Applied Mathematics, University of Dhaka, Bangladesh.