# **Curriculum Vitae**

Dr. NAJNIN ISLAM

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# **Current Position:**

**Designation**: Assistant Professor (1st March 2024- Present)

**Department:** Mathematics

University: Swami Vivekananda University (Kolkata)

# **Previous Employment Detail:**

(a) Assistant Professor (13th February 2023- 20<sup>th</sup> February 2024)

**Department:** Mathematics

University: KL University (Hyderabad)

**(b)** Assistant Professor (1st February 2021- 9th February 2023)

**Department:** Mathematics (School of Engineering and Applied Sciences)

University: Bennett University

# **Research Interest:**

# Area of Specialization:

- Applied mathematics,
- Fluid Dynamics,
- Mathematical Modelling of Water Wave Phenomenon,
- Integral Equation.

#### **Current Interest:**

- Computational Fluid Dynamics,
- Biofluid Dynamics
- Mathematical modelling
- Numerical Methods

# **Academic Qualifications:**

# • <u>2014-2020</u> : Ph.D. (Mathematics)

Institution: Indian Institute of Technology Kharagpur, India.

Thesis Supervisor: Dr. Rupanwita Gayen,

Date of Defence Viva – 29.02.2020 CGPA (Coursework) – 8/10

# • 2012-2014: M.Sc. (Mathematics)

Institution: Indian Institute of Technology Kharagpur, India.

CGPA - 8.12/10

#### • 2009-2012: B.Sc. (Mathematics)

University: Visva-Bharati University, India.

Percentage - 70.1 %

# • 2009: Higher Secondary (12th)

Institution: Berhampore maharani kashiswari girls' high school, Murshidabad, West Bengal. Percentage – 74%

#### • 2007: Madhyamik(10th)

Institution: Berhampore maharani kashiswari girls' high school, Murshidabad, West Bengal. Percentage – 81.25%

#### **Scholarships & Fellowships:**

- Awarded '**SERB-NPDF**' postdoctoral fellowship (December 2021).
- Awarded 'Women Post-Doctoral Fellowship' (September 2020) from IIT Madras.
- Awarded 'Institute Research Assistantship' (June 2014-June 2019) funded by MHRD, Govt. of India, from IIT Kharagpur.
- Qualified 'Joint Admission Test for M.Sc. (JAM) 2012' exam in Mathematics.

#### **Academic Achievements:**

 Invited as an external expert in the interview panel for project associate position at C.S.I.R.- National Institute of Oceanography (NIO), Dona Paula, Goa - 403004, India, on 11th January 2022.

# **Publications in refereed journals:**

**1. Najnin Islam**, Somdutta Kayal and Souvik Kundu: A study on the interaction of waves with a submerged vertical elastic plate present in either layer of a two-layer fluid, **Ocean Engineering**, 304 (2024), 117932. **Q1.** [publisher = Elsevier, Impact factor=4.372], **Q1**.

**ISSN Number:** 1873-5258

**DOI:** <a href="https://doi.org/10.1016/j.oceaneng.2024.117932">https://doi.org/10.1016/j.oceaneng.2024.117932</a>

2. Najnin Islam and R. Gayen: Water wave scattering and energy dissipation by interface piercing porous plates, Journal of Marine Science and Technology, 25(2) (2021). [publisher=Springer, Impact factor=2.38], O1.

**ISSN Number:** 1437-8213

DOI: https://doi.org/10.1007/s00773-020-00725-6

Link: https://link.springer.com/content/pdf/10.1007/s00773-020-00725-6.pdf

**3.** Najnin Islam and R. Gayen: Water wave diffraction by a circular barrier in two superposed fluids with an ice-cover, Ocean Engineering, 207 (2020) 107182. [publisher = Elsevier, Impact factor=4.372], Q1.

**ISSN Number:** 1873-5258

DOI:https://doi.org/10.1016/j.oceaneng.2020.107182

Link: https://www.sciencedirect.com/science/article/abs/pii/S0029801820302419

**4.** Najnin Islam, Souvik Kundu and R. Gayen: Scattering and radiation of water waves by a submerged rigid disc in a two-layer fluid, **Proceedings of the Royal Society A:** Mathematical, Physical and Engineering Sciences, 475(2232) (2019), 20190331. [publisher=The Royal Society Publishing, Impact factor=3.479], Q1.

**ISSN Number:** 1873-5258

DOI: https://doi.org/10.1098/rspa.2019.0331

Link: https://royalsocietypublishing.org/doi/pdf/10.1098/rspa.2019.0331

**5.** S. Kundu, R. Datta, R. Gayen, and **Najnin Islam**: The interaction of flexural gravity waves with a submerged rigid disc, **Applied Ocean Research**, 92 (2019), 101912. [publisher=Elsevier, Impact factor=3.761], **Q1**.

**ISSN Number:** 1873-5258

DOI: https://doi.org/10.1016/j.apor.2019.101912

Link: https://www.sciencedirect.com/science/article/abs/pii/S0141118719303499

**6. Najnin Islam** and R. Gayen: Scattering of water waves by an inclined plate in a two-layer fluid, **Applied Ocean Research**, 80 (2018) 136-147. [publisher=Elsevier, Impact factor=3.761], **Q1**.

**ISSN Number:** 1873-5258

DOI: <a href="https://doi.org/10.1016/j.apor.2018.06.021">https://doi.org/10.1016/j.apor.2018.06.021</a>

Link: https://www.sciencedirect.com/science/article/abs/pii/S0141118717306995

7. Najnin Islam, R. Gayen and B. N. Mandal: Wave motion due to a ring source in two superposed fluids covered by a thin elastic plate, **Journal of Applied Fluid Mechanics**, 11(4) (2018), 1047-1057.[Impact factor=1.70] **O3.** 

**ISSN Number:** 1873-5258

DOI:10.29252/jafm.11.04.27914

Link: file:///C:/Users/USER/Downloads/27914 010919061005%20(2).pdf

8. R. Gayen and Najnin Islam: Effect of a floating elastic plate/membrane on the motion due to a ring source in water with porous bed, Indian Journal of Pure and Applied Mathematics, 49(2) (2018), 239-256. [publisher= Springer, Impact factor=0.53] Q3.

**ISSN Number:** 1873-5258

DOI: 10.1007/s13226-018-0266-7

Link: https://link.springer.com/content/pdf/10.1007/s13226-018-0266-7.pdf

#### **Publications in conference proceedings:**

• Sanjib Naskar, **Najnin Islam**, Rupanwita Gayen and Ranadev Datta, Propagation of Water Waves in the Presence of a Horizontal Plate Submerged in a Two-Layer Fluid, FIAM-2021,410 (The 4th International Conference on Frontiers in Industrial and Applied Mathematics), 2023, 427-441.

**DOI:** 10.1007/978-981-19-7272-0 30,

Link: https://link.springer.com/chapter/10.1007/978-981-19-7272-0\_30

#### **Attended Conference:**

- Participated in the 2nd International Workshop on Numerical and Analytical Techniques in Engineering Problems (IWNATEP) Organized by Department of Mathematics, College of Engineering and Technology SRM Institute of Science and Technology, Kattankulathur. 19th-21st January 2022.
- Participated in the international workshop "Nonlinear problems in hydroelasticity" organized by SPARC (Scheme for Promotion of Academic and Research Collaboration) at **Indian Institute of Technology Kharagpur**, India. **13th-17th December 2021.**
- Participated in the international conference "Advance in Differential Equations and Numerical Analysis", **Indian Institute of Technology Guwahati**, India. **12th-15th October 2020**.
- Participated in the international conference "Society for the Industrial and Applied Mathematic", Oregon Convention Center Portland, Oregon, USA, 9th-13th July, 2018

# **List of Collaboration:**

• Professor (retd.) **B. N. Mandal**, Indian Statistical Institute, Kolkata, INDIA

# **Teaching Experience**:

**Assistant Professor** - Department of Mathematics, **Bennett University**, 1<sup>st</sup> February 2021-9<sup>th</sup> February 2023.

# **Subjects Taught:**

- 1. Engineering Calculus
- 2. Linear Algebra
- 3. Complex Analysis
- **4.** Ordinary Differential Equations
- **5.** Partial Differential Equations
- **6.** Probability theory
- 7. Discrete mathematics

### **Technical Skills:**

☐ **Operating Systems:** Windows. ☐ **Programming Languages:** C.

☐ **Mathematical Software:** MATLAB, Mathematica.

☐ **For Documentation:** Texmaker, WinEdt. Microsoft Office (Word, Power Point).

#### **References:**

#### Dr. Rupanwita Gayen

**Associate Professor** 

Email: rupanwita.gayen@gmail.com

Ph. No.- 9433503973

#### **Dr. Sushanta Chakraborty**

**Associate Professor** 

Email: sushanta@civil.iitkgp.ac.in

Ph. No.- 9474756479

# Department of Civil Engineering,

Indian Institute of Technology Kharagpur,

Indian Institute of Technology Kharagpur,

West Midnapore, 721302

Department of Mathematics

West Midnapore, 721302

#### Dr. Somnath Bhattacharyya

Professor

Email: somnath@maths.iitkgp.ac.in

Ph. No.- 9434758966

# Department of Mathematics

Indian Institute of Technology Kharagpur,

West Midnapore, 721302

# **Personal Details:**

• Date of birth: March 28, 1992

• Sex: Female

• Nationality: Indian

• Permanent Address: Berhampore, Murshidabad, West Bengal.

# **Declaration:**

I hereby declare that all the details furnished above are true to the best of my knowledge and belief.

Najnin Islam

(Dr. Najnin Islam)