

## CURRICULUM VITAE

1. **Full name of the faculty member:** Soumen De

2. **Specialization :** Applied Mathematics

3. **Address:**

**(a) Official:** Department of Applied Mathematics  
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**(b) Residential:** Sonartoree Apartment  
Flat No-2C, 145 Dr. M.N. Saha Road  
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Kolkata-700074

**(c) Date of Birth:** 25th November 1981

**Place of Birth :** Baligeria, Jhargram , West Medinapore,  
West Bengal, Pin-721125, India.



### 4. Academic Qualifications

Examination / Degree	Board / Council / University / other examining body	Year of passing	Division / Class	Subjects / Discipline
B.Sc. (HONS)	VIDYASAGAR UNIVERSITY	2002 	1st Class 1st 	Mathematics(Hons), Physics, Computer Science
M.Sc in Applied Mathematics	UNIVERSITY OF CALCUTTA	2004 	1st Class 1st 	Applied Mathematics Special Paper: Fluid Mechanics

Degree	Title of Research	University/Institute	Degree obtained Year
Ph.D.(Sc.) in Applied Mathematics	SOME PROBLEMS ON WATER WAVE SCATTERING	INDIAN STATISTICAL INSTITUTE, KOLKATA.  Guide's Name: <b>Prof. B.N. Mandal</b> PhD,FNASc(India),FIMA(UK), CMath(UK),FWIGB(UK) Professor(Retired), ISI Kolkata, NASI Senior Scientist Platinum Jubilee Fellow(2009-2014)	DEGREE OBTAINED NOVEMBER 2009 FROM UNIVERSITY OF CALCUTTA

### 5. Academic Positions held/ holding:

Name of the Employer	Post held	Duration	
		From	To
Indian Statistical Institute, Kolkata	Junior Research Fellow	01.09.2004	31.08.2006
Indian Statistical Institute, Kolkata	Senior Research Fellow	01.09.2006	11.04.2007
DUMDUM MOTIJHEEL COLLEGE	ASSISTANT PROFESSOR (Stage-1)	12.04.2007	11.11.2008
UNIVERSITY OF CALCUTTA	ASSISTANT PROFESSOR (Stage-1)	12.11.2008	11.04.2011
UNIVERSITY OF CALCUTTA	ASSISTANT PROFESSOR (Stage-2)	12.04.2011	11.04.2016
UNIVERSITY OF CALCUTTA	ASSISTANT PROFESSOR (Stage-3)	12.04.2016	11.04.2019
UNIVERSITY OF CALCUTTA	ASSOCIATE PROFESSOR	12.04.2019	11.04.2022
UNIVERSITY OF CALCUTTA	PROFESSOR (due)	12.04.2022	Continue

### Honour & Award:

- Teachers Associateship for Research Excellence (TARE) fellowship, SERB, Department of Science and Technology, Government of India, 2022-2025.
- NET (National Eligibility Test), December 2003(CSIR).
- Selected for SPM fellowship test in the National Eligibility Test (CSIR) MATHEMATICAL SCIENCES, 2003.
- Junior Research Fellow, (2004). Indian Statistical Institute, Senior Research Fellow, (2006), Indian Statistical Institute, Kolkata.
- University Gold Medal for Rank-1 in M.Sc. (Applied Mathematics) University of Calcutta, 2004.
- University Gold Medal for Rank-1 in B.Sc. (Mathematics (Hons.)) Vidyasagar University, 2002.
- Gold Medal from Vidyasagar Vidyapith, Paschim Medinapore, West Bengal for Rank-1 in B.Sc. (Mathematics (Hons.)), 2002.

- National Scholarship from Government of India, Ministry of HRD (Department of Education), 2002-2004.

## 6. Research interests:

- CONTINUUM MECHANICS
- FLUID MECHANICS
- WATER WAVES
- COMPUTATIONAL FLUID DYNAMICS
- INTEGRAL EQUATIONS
- Integral transforms
- Partial Differential Equations
- Machine learning

## 7. Foreign Assignments:

Sl. No.	University, Country	Period of Visit	Duration of Visit	Purpose	Sponsor
1.	National Technical University of Athens. Greece, Europe	15-21 April, 2011	One Week	26th International Workshop on Water Waves and Floating Bodies (IWWWFB), organized by National Technical University of Athens, Greece	Travel Fellowship, DST, Government of India (File no.: SR/ITS/0122/2011-2012)
2.	University of Zagreb, Croatia, Europe	14-20 September, 2015	One Week	7th International Conference on Hydroelasticity in Marine Technology (HYEL), organized by University of Zagreb, Croatia	CICS travel fellowship (File no: DO\Lr.\TF-III\2015-2016) and UGC travel fellowship (No. UGC/566/XII-th Plan Travel)
3.	University of Split. Croatia, Europe	22-30 September, 2018	One Week	23RD SYMPOSIUM ON THE THEORY AND PRACTICE OF SHIPBUILDING, ORGANIZED BY UNIVERSITY OF SPLIT, CROATIA	Travel Fellowship, SERB, DST, Government of India (File No: ITS/2018/004038)
4.	The University of Newcastle, Australia	05-11 April, 2019	One Week	34th International Workshop on Water Waves and Floating Bodies (IWWWFB), organized By Newcastle University, Australia	University of Newcastle University of Calcutta, SERB
5	Qatar University, Doha, Qatar	04-10 February 2023	One Week	15 <sup>th</sup> International Conference on Vibration Problems (ICOVP-2023), organized by Qatar University, Doha, Qatar	Qatar University, University of Calcutta, SERB
6.	Aalto University, Espoo, Helsinki, Finland	27 August-03 September 2023	One Week	The 12th International Workshop on Ship and Marine Hydrodynamics (IWSH 2023)	Aalto University, University of Calcutta & SERB
7.	American Society of Mechanical Engineers, Singapore Expo Singapore	08-15 June, 2024	One Week	The ASME 43rd International Conference on Ocean, Offshore & Arctic Engineering (OMAE2024)	University of Calcutta, & SERB
8.	Kasetsart University, Sriracha campus, Pattaya, Thailand	25 February – 01 March, 2025	One Week	The 3 <sup>rd</sup> International Conference in South East Asia on the Future of Maritime Technology & Use of the Sea 2025	University of Calcutta (DPO/94/Travel Grant)

## 8. Research guidance:

Total Number <b>Ph.D</b> Student	<b>25</b>
Number of <b>Ph.D</b> awarded	<b>16</b>
Number of <b>Ph.D</b> thesis submitted	<b>01</b>
Number of <b>Ph.D</b> registered	<b>07</b>
Number of <b>Ph.D</b> enrolled	<b>01</b>

Sl. No.	Name of the Student	Title of Thesis	Year of award of Degree, University	Present Position
1.	Rajdeep Maiti (CSIR Fellow) (Co-Supervisor)	Water Wave Scattering In Presence of Surface Discontinuity, Porosity And Bottom Undulations	1 <sup>st</sup> March, 2017 University of Calcutta	Assistant Professor, Dept. of Mathematics, City College of Commerce and Business Administration, Kolkata, Govt. of West Bengal, India
2.	Satyasaran Changdar (Supervisor)	Some Problems On The Nonlinear Blood Flow Through Stenosed Arteries	5 <sup>th</sup> December, 2018 University of Calcutta	Postdoctoral Research Fellow, University of Copenhagen, Denmark
3.	Ranita Roy (Supervisor)	Water Wave Scattering by Obstacles of Different Geometrical Configurations	18 <sup>th</sup> January, 2019 University of Calcutta	Assistant Professor, Dept. of Mathematics, Serampore College, West Bengal, Govt. of West Bengal, India
4.	Nityananda Thakur (Joint-Supervisor)	Effect Of Elastic Plate (Ice-Cover) On Water Wave Problems Created By Floating And Submerged Bodies	25 <sup>th</sup> February, 2019 University of Calcutta	Assistant Professor, Dept. of Mathematics, Surendranath Evening College, Kolkata, Govt. of West Bengal, India
5.	Sandip Paul (Supervisor)	On Water Wave Scattering By Obstacles	29 <sup>th</sup> March, 2019 University of Calcutta	Associate Professor, Dept. of Mathematics, Dr. B. C. Roy Engineering College, Durgapur, West Bengal, India
6.	Avipsita Chatterjee (CPEPA-UGC project Fellow) (Supervisor)	Numerical Solution Of Some Classes Of Differential Equations	18 <sup>th</sup> December, 2019 University of Calcutta	Assistant Professor, Dept. of Information Technology IEM, Kolkata, India
7.	Anjan Sasmal (Supervisor)	Some Problems On Water Waves Scattering By Barrier and Bottom Undulation	23 <sup>rd</sup> December, 2020 University of Calcutta	Assistant Teacher, West Bengal School Service Commission, Govt. of West Bengal, India
8.	Bablu Chandra Das (UGC Fellow) (Supervisor)	On Water Wave Scattering and Related Mathematical Methods	5 <sup>th</sup> February, 2021 University of Calcutta	Assistant Professor, Dept. of Mathematics, Nabadwip Vidyasagar College, West Bengal, Govt. of West Bengal, India
9.	Subhabrata Mondal (CSIR Fellow) (Supervisor)	Numerical and Analytical Solutions of Some Singular Integral Equations	9 <sup>th</sup> March, 2021 University of Calcutta	Assistant Professor and Head, Dept. of Mathematics and Physics, Swami Vivekananda University, Barrackpore, West Bengal, India
10.	Swagata Ray (CSIR Fellow) (Supervisor)	Some problems In The Linearised Theory Of Water Waves	3 <sup>rd</sup> August , 2022 University of Calcutta	Assistant Professor, Dept. of Mathematics, Bengal Institute of Technology, Kolkata, India
11.	Nihar Sarkar (Supervisor)	Some Problems On Wave Propagation In Generalized Coupled Thermoelastic Media	5 <sup>th</sup> April, 2023, University of Calcutta	Assistant Professor, Dept. of Mathematics, City College, Kolkata, Govt. of West Bengal, India

12.	Arijit Das (UGC Fellow) (Supervisor)	On Some Water Wave Propagation Problem	11th April, 2023, University of Calcutta	Assistant Professor, Dept. of Mathematics, Swami Vivekananda University, Barrackpore, West Bengal, India
13.	Bivas Bhaumik (UGC Fellow) (Supervisor)	Some problems on nanofluids and applications.	18th August, 2023, University of Calcutta	Assistant Professor, Dept. of Mathematics, National Institute of Technology Rourkela, Odisha, India, Govt. of India
14.	Biman Sarkar (WBDST Project Fellow) (Supervisor)	Water Wave Interaction With Floating And Submerged Structures	12th December, 2023, University of Calcutta	Postdoctoral Research Fellow in Centre of Excellence for Ocean Engineering, National Taiwan Ocean University, Taiwan
15.	Narayan Das (Joint Supervisor)	Some Dynamic Problem in Generalized Thermoelasticity in Presence of Nonlocal Elasticity	15th April, 2024 University of Calcutta	Assistant Professor, Dept. of Mathematics, Government General Degree College, Datan-II, West Bengal, Govt. of West Bengal, India
16.	Jyotirmoy Mouley (UGC Fellow) (Supervisor)	Numerical solution of some classes of integral equations using wavelets	19th April, 2024, University of Calcutta	PGT (Mathematics), PM Shri Kenddriya Vidyalaya No. 1 (AFS), Kalaikunda, Ministry of Education, Govt. of India
17.	Subrata Gorai (SVMCM Fellow) (Supervisor)	Studies On Various Instabilities Produced In Falling Liquid Films	Thesis submitted on 20 <sup>th</sup> March 2025	Assistant Professor, Dept. of Basic Science and Humanities, Abacus Institute of Engineering and Management (AIEM), West Bengal, India
18.	Selina Hossain (UGC Fellow) (Supervisor)	Studies On The Class Of Water Wave Generation Problems	Ph.D ongoing (Thesis Pre submission)	UGC Research Scholar, University of Calcutta
19.	Susmita Saha (CSIR Fellow) (Supervisor)	Machine Learning Based Predictive Analysis In Some Areas Of Costal And Ocean Engineering	Ph.D ongoing	CSIR Research Scholar, University of Calcutta
20.	Soumini Dolui (CSIR Fellow) (Supervisor)	Mathematical Modelling Of Bio Fluid Flow In Presence Of Nanoparticles	Ph.D ongoing	CSIR Research Scholar, University of Calcutta
21.	Anuradha Biswas (ISI Fellow) (Joint Supervisor)	Water Wave Interaction With Submerged Bodies Of Various Geometrical Configuration	Ph.D ongoing	JRF Research Fellow Indian Statistical Institute, Kolkata
22.	Priya Sharma (SVMCM Fellow) (Supervisor)	Studies On A Class Of Submerged And Floating Breakwaters	Ph.D ongoing	Research Scholar, University of Calcutta
23.	Koushik Nandi (Supervisor)	Mathematical Studies On Some Water Wave Scattering and Generation Problems	Ph.D ongoing	Research Scholar, University of Calcutta
24.	Biplab Mal (Supervisor)	Mathematical Modeling And Analysis Of Physiological Nano Fluid Flow	Ph.D ongoing	UGC Research Scholar, University of Calcutta

## 9. Research Projects:

Sl. No.	Title	Agency	Period	Grant/Amount Mobilized(Rs. in lakhs)
1.	Mathematical study of water wave scattering and radiation problems (TAR/2022/000107)	Science and Engineering Research Board for funding under <b>Teachers Associateship for Research Excellence (TARE)</b> , Government of India	03 years (12 October 2022-11 October 2025)	18.70Lakhs

2.	Interaction of Water Waves with Floating and Submerged Bodies (EMR/2016/005315)	Science and Engineering Research Board, DST, Government of India	03 years (5th October 2017-4th October 2020)	3.30 Lakhs
3.	Some radiation and scattering problems in the theory of water waves and associated mathematical technique (Memo No . 14(Sanc.)/ST/P/S&T/16G-3812017 dated: 11/06/2018) ( Memo No. 1623(Sanc.)/STBT-11012(26)/7/2019-ST SEC dated: 02/01/2020) (Memo No. 1240(Sanc.)/STBT-11012(26)/7/2019-ST SEC dated: 28/02/2022)	Higher Education, Science & Technology and Bio-Technology, Government of West Bengal	03 years (June 2018-May 2021)	7.37 Lakhs
4.	Electro-physiological and Neuro-imaging Studies Including Mathematical Modeling (Sanction No. F.No.8-2/2008 (NS/PE)) Formulation of Mathematical Models on Different Psychological and Biological Phenomena (Soumen De) <a href="https://www.caluniv.ac.in/academic/CPEPA.html">https://www.caluniv.ac.in/academic/CPEPA.html</a>	UGC Scheme of Centre with potential for excellence in Particular Area (CPEPA), Government of India	04 years (Jan 2014- Dec 2018)	615 Rs. In Lakhs. Per Scientist 68.33 Lakhs

## 10. List of publications:

Total number publications	143
Number of <b>SCI Journal</b> publications	93
Number of <b>SCOPUS</b> publications	29
Number of <b>Refereed Journal</b> , having ISSN no.	11
Number of <b>Books</b>	2
Number of <b>Conference Proceedings</b> , having ISBN no.	8

My list of publications can also be found at






[https://www.researchgate.net/profile/Soumen\\_De5](https://www.researchgate.net/profile/Soumen_De5)  
<https://scholar.google.co.in/citations?user=Zwli7oUAAAAJ&hl=en>  
<https://orcid.org/0000-0001-8988-3679>  
<https://www.webofscience.com/wos/author/record/2075035>  
<https://www.scopus.com/authid/detail.uri?authorId=57207376337>

### a) Books:

1. B.N. Mandal and **Soumen De**, 2016, Water Waves Scattering, CRC Press, New York, USA. Print ISBN: 978-1-4987-0552-3, eBook ISBN: 978-1-4987- 0553-0.  
DOI: <https://doi.org/10.1201/b18501>
2. Susmita Sarkar, Uma Basu and **Soumen De**, 2015, Applied Mathematics, Springer Proceedings in Mathematics & Statistics, ISBN: 978-81-322-2546-1.  
DOI: <https://doi.org/10.1007/978-81-322-2547-8>



## **b) Journals:**

1. **Soumen De**, Rupanwita Gayen, B.N.Mandal, (2005) Water wave scattering by two partially immersed nearly vertical barriers, *Wave Motion* ( ELSEVIER), **43**, 167-175 [SCI, IF-1.576]  
DOI: <https://doi.org/10.1016/j.wavemoti.2005.09.001>
2. B.N.Mandal and **Soumen De**, (2006) Water wave scattering by submerged nearly vertical barriers, *The ANZIAM Journal* ( CAMBRIDGE UNIVERSITY PRESS) **48**,107-118. [SCI, IF-0.554]  
DOI: <https://doi.org/10.1017/S1446181100003448>
3. B.N.Mandal and **Soumen De**, (2007) Water wave scattering by bottom undulations in the presence of a thin submerged vertical plate, *International Journal of Applied Mathematics and Engineering Sciences (Serials Publications Pvt. Ltd.)*, **1**, 193-205. [ISSN: 0973-5275].  
[https://www.researchgate.net/publication/266573703\\_Water\\_wave\\_scattering\\_by](https://www.researchgate.net/publication/266573703_Water_wave_scattering_by)
4. B.N.Mandal and **Soumen De**, (2008) Water wave scattering by small bottom undulations in the presence of surface discontinuity, *Geophysical Astrophysical Fluid Mechanics* ( Taylor & Francis an informa business), **103**, 19-30. [SCI, IF-1.533]  
DOI: <https://doi.org/10.1080/03091920802390073>
5. **Soumen De** and B.N. Mandal, A. Chakraborti, (2009) Water wave scattering by two partially immersed plane vertical barriers – Abel integral equations approach, *Journal of Engineering Mathematics* ( Springer), **65**, 75-87. [SCI, IF-1.146]  
DOI: <https://doi.org/10.1007/s10665-009-9265-3>
6. **Soumen De**, B.N. Mandal, A. Chakraborti, (2010) Use of Abel integral equations in water wave scattering by two surface-piercing barriers, *Wave Motion* ( ELSEVIER), **47**, 279-288. [SCI, IF-1.576]  
DOI: <https://doi.org/10.1016/j.wavemoti.2009.12.002>
7. **Soumen De** and B.N. Mandal, (2012) Water wave scattering by two vertical barriers with submerged gaps at the same level, *Journal of the Tripura Mathematical Society*, **13**, 154-162.[ ISSN: 0972-1320]  
[https://www.researchgate.net/publication/352354348\\_Water\\_wave\\_scattering\\_by](https://www.researchgate.net/publication/352354348_Water_wave_scattering_by)
8. Anjan Sasmal and **Soumen De**, (2012) Oblique water wave scattering by bottom undulations in the presence of thin submerged vertical barrier, *International Journal of Engineering Research and Development*, **3**(3), 50-57. [ISSN:2278-067X]
9. Uma Basu, R Maiti and **Soumen De**, (2012) Water wave scattering by a dock in presence of bottom undulation, *American Journal of Fluid Dynamics,(Scientific & Academic Publishing)* **2**(4), 55-60.  
DOI: <https://doi.org/10.5923/j.ajfd.20120204.04>
10. Uma Basu, R Maiti and **Soumen De**, (2012) Water wave scattering in presence of surface discontinuity over an uneven porous bottom, *International Journal of Engineering Research and Development*, **3**, 64-73. [ISSN:2278-067X]
11. **Soumen De**, B.N. Mandal and A. Chakrabarti, (2013) Water wave scattering by two thin vertical barriers with apertures, *International Journal of Applied Mathematics and Engineering Sciences (Serials Publications Pvt. Ltd.)***7**(2), 161-175. [ISSN : 0973-5275]  
[https://www.researchgate.net/publication/334479725\\_WATER\\_WAVE\\_SCATTERING\\_BY](https://www.researchgate.net/publication/334479725_WATER_WAVE_SCATTERING_BY)
12. Satarupa Das, Soma Das, Satyasan Changdar, **Soumen De**, (2014) Analysis of blood flow through multi-irregular shape stenosed artery, *International Journal of Pharmacy and Biological Sciences*, **4**(2), 244-252. [ISSN:- 2230-7605].  
[https://www.ijpbs.com/ijpbsadmin/upload/ijpbs\\_5b4b622fb180c.pdf](https://www.ijpbs.com/ijpbsadmin/upload/ijpbs_5b4b622fb180c.pdf)

13. Sandip Paul and **Soumen De, (2014)** Wave scattering by porous bottom undulation in a two layered Channel, *Journal of Marine Science and Applications* (  Springer), **13(4)**, 355-361 [SCOPUS, IF-1.8]  
DOI: <https://doi.org/10.1007/s11804-014-1276-4>
14. Satyasan Changdar and **Soumen De, (2015)** Numerical Simulation of Nonlinear Pulsatile Newtonian Blood Flow through a Multiple Stenosed Artery, *International Scholarly Research Notices* (Hindawi ) , **2015**, 1-10.  
DOI: <https://doi.org/10.1155/2015/628605>
15. Satyasan Changdar, **Soumen De, (2016)** Analysis of non-linear pulsatile blood flow in artery through a generalized multiple stenosis. *Arab Journal of Mathematics* (  Springer), **5**:51-61 [SCOPUS]  
DOI: <https://doi.org/10.1007/s40065-015-0138-5>
16. Satyasan Changdar, **Soumen De, (2017)** Transport of spherical nanoparticles suspended in a blood flowing through stenosed artery under the influence of Brownian motion. *Journal of Nanofluids* (American Scientific Publishers ) , **6(1)**: 87-96. [SCOPUS, IF-1.17]  
DOI: <https://doi.org/10.1166/jon.2017.1291>
17. Sandip Paul and **Soumen De, (2017)** Wave Scattering by Uneven Porous Bottom in a Three Layered Channel, *Journal of Marine Science and Technology* (  Springer), **22**: 533-545. [SCI, IF-1.845]  
DOI: <https://doi.org/10.1007/s00773-016-0430-x>
18. Satyasan Changdar, **Soumen De (2017)** Analytical solution of mathematical model of MHD blood nanofluid flowing through an inclined multiple stenosed artery. *Journal of Nanofluids* (American Scientific Publishers ) , **6(6)**: 1198-1205. [SCOPUS, IF-1.17]  
DOI: <https://doi.org/10.1166/jon.2017.1393>
19. Swagata Ray, **Soumen De** and B.N. Mandal, **(2017)** Note on Water Wave Scattering by a Step, *Pacific Journal of Applied Mathematics* (Nova Science Publishers), **9(3)**, 221-230 [ISSN: 1941-3963].
20. Sandip Paul and **Soumen De, (2018)** Effect of vertical porous barrier on progressive waves in a two layered fluid, *Ocean Engineering* (  ELSEVIER), **156**:153-166. [SCI, IF-2.730]  
DOI: <https://doi.org/10.1016/j.oceaneng.2018.02.036>
21. Satyasan Changdar and **Soumen De, (2018)** Investigation of Nanoparticle as a Drug Carrier Suspended in a Blood Flowing Through an Inclined Multiple Stenosed Artery, *BioNanoScience* (  Springer), **8(1)**: 166-178. [SCOPUS, IF-3.0]  
DOI: <https://doi.org/10.1007/s12668-017-0446-7>
22. B.C. Das, **Soumen De**, B.N. Mandal, **(2018)** Oblique scattering by thin vertical barriers in deep water: Solution by multi-term Galerkin technique using simple polynomials as basis, *Journal of Marine Science and Technology* (  Springer), **23 (4)**: 915-925. [SCI, IF-1.845]  
DOI: <https://doi.org/10.1007/s00773-017-0520-4>
23. R Roy, **Soumen De** and B.N. Mandal, **(2018)** Water wave scattering by two surface-piercing and one submerged thin vertical barriers, *Archive of Applied Mechanics* (  Springer), **88(9)**: 1477-1489. [SCI, IF-1.578]  
DOI: <https://doi.org/10.1007/s00419-018-1382-x>
24. Satyasan Changdar, Amit Kumar Mandal, and **Soumen De, (2018)** Analytical Investigation of Non-Spherical Nanoparticle as a Drug Agent Suspended in a Magnetohydrodynamic Blood Nanofluid Flowing Through an Irregular Shape Stenosed Artery. *Journal of Nanofluids* (American Scientific Publishers ) , **7(6)**: 1187-1194. [SCOPUS, IF-1.17]  
DOI: <https://doi.org/10.1166/jon.2018.1526>



25. Satyasan Changdar and **Soumen De**, (2019) Analytical Investigation of Nanoparticle as a Drug Carrier Suspended in a MHD Blood Flowing Through an Irregular Shape Stenosed Artery, *Iranian Journal of Science and Technology, Transaction A, Science* ( Springer), **43**, 1259-1272 [SCI, IF-0.875]  
DOI: <https://doi.org/10.1007/s40995-018-0601-1>
26. Anjan Sasmal, Sandip Paul and **Soumen De**, (2019) The influence of surface tension on oblique wave scattering by a rectangular trench, *Journal of Applied Fluid Mechanics (Isfahan University of Technology)*. **12(1)**, 233-241. [SCI, IF-0.918]  
DOI: <https://doi.org/10.29252/jafm.75.253.28900>
27. R Roy, **Soumen De** and B.N. Mandal, (2019) Water wave scattering by multiple thin vertical barriers, *Applied Mathematics and Computation* ( ELSEVIER) **355**, 458-481. [SCI, IF-3.472].  
DOI: <https://doi.org/10.1016/j.amc.2019.03.004>
28. Nihar Sarkar, **Soumen De** and Nantu Sarkar, (2019) Memory response in plane wave reflection in generalized magneto-thermoelasticity, *Journal of Electromagnetic Waves and Applications* ( Taylor & Francis an informa business), **33(10)**, 1354-1374. [SCI, IF-1.351]  
DOI: <https://doi.org/10.1080/09205071.2019.1608318>
29. Nihar Sarkar, **Soumen De** and Nantu Sarkar, (2019) Waves in nonlocal thermoelastic solids of type II, *Journal of Thermal Stresses* ( Taylor & Francis an informa business), **42(9)**, 1153-1170. [SCI, IF-2.943].  
DOI: <https://doi.org/10.1080/01495739.2019.1618760>
30. Avipsita Chatterjee, **Soumen De** and B.N. Mandal, (2019) Numerical solution of Fractional-Order integro-differential equations with nonlocal boundary conditions using Bernstein polynomial, *Bulletin of the Calcutta Mathematical Society*, **111(3)**, 211-224. [ISSN:0008-0659]
31. R Roy, **Soumen De** and B.N. Mandal, (2019) Water wave scattering by three thin vertical barriers arranged asymmetrically in deep water, *Fluid Dynamics Research (Institute of Physics(IOP) Publishing)*, **51**, 045508:1-23. [SCI, IF-0.993]  
DOI: <https://doi.org/10.1088/1873-7005/ab2d4d>
32. Anjan Sasmal and **Soumen De**, (2019) Oblique water wave diffraction by two vertical porous barriers with nonidentical submerged gaps, *Meccanica* ( Springer), **54(10)**, 1525-1544. [SCI, IF-2.316]  
DOI: <https://doi.org/10.1007/s11012-019-01031-1>
33. Anjan Sasmal, Sandip Paul and **Soumen De**, (2019) The effect of porosity on oblique wave diffraction by two unequal vertical porous barriers, *Journal of Marine Science and Applications* ( Springer), **18(4)**, 417-432, [SCOPUS, IF-1.8].  
DOI: <https://doi.org/10.1007/s11804-019-00107-4>
34. Sandip Paul, Anjan Sasmal and **Soumen De**, (2019) Interaction of oblique waves with an ice sheet over an asymmetric trench, *Ocean Engineering* ( ELSEVIER), **193**, 106613 (1-8). [SCI, IF-3.068]  
DOI: <https://doi.org/10.1016/j.oceaneng.2019.106613>
35. Swagata Ray, **Soumen De** and B.N. Mandal, (2019) Water wave scattering by an infinite in the presence of an ice-cover, *International Journal of Applied Mechanics and Engineering (Sciendo)*, **24(4)**, 157-168. [SCOPUS, IF-0.42]  
DOI: <https://doi.org/10.2478/ijame-2019-0055>
36. B.C. Das, **Soumen De**, B.N. Mandal, (2019) Wave propagation through a gap in a thin vertical wall in deep water, *CUBO, A Mathematical Journal (Universidad de La Frontera, Temuco, Chile)*, **21(3)**, 93-105. [SCOPUS, IF-0.6]

DOI: <http://dx.doi.org/10.4067/S0719-06462019000300093>

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112. Soumini Dolui, Bivas Bhaumik and Soumen De (2025) Nanoparticle Aggregation and Electro-Osmotic Propulsion in Peristaltic Transport of Third-Grade Nanofluids Through Porous tube, *Mathematics and Computers in Simulation*, (  ELSEVIER ), **232**, 17-49 [SCI, IF-4.4].  
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113. Biplab Mal, Soumini Dolui, Bivas Bhaumik and Soumen De (2025) Impact of Interfacial Nanolayers on Ternary Casson Nanofluid Flow Through Ciliated Walls in the Presence of Variable Magnetic Fields, *Electromagnetic Biology and Medicine* (  Taylor & Francis an informa business ), **44(1)**, 79-106. [SCI, IF-1.6].  
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114. Biman Sarkar, Soumen De, Chia-Cheng Tsai and Tai-Wen Hsua (2025) Wave scattering by an infinite trench in presence of bottom-mounted inverted  $\Pi$ -shaped or floating  $\Pi$ -shaped structure, *Physics of Fluids (American Institute of Physics-  Publishing)*, **37(1)**, 017131. [SCI, IF-4.1].  
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115. Arijit Das and Soumen De (2025) Water Wave Interaction with a Submerged Porous Disc in a Two-Layer Fluid, *Physics of Fluids (American Institute of Physics-  Publishing)*, **37(2)**, 027158. [SCI, IF-4.1].  
DOI: <https://doi.org/10.1063/5.0255719>

116. Koushik Nandi, Biman Sarkar, Selina Hossain and **Soumen De**, (2025) Hydroelastic analysis of wave scattering by multiple bottom standing flexible permeable barriers in uniform finite depth, *Ships and Offshore Structures* (Taylor & Francis an informa business) [SCI, IF-1.7].  
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117. Priya Sharma, Biman Sarkar and **Soumen De**, (2025) Comparative hydrodynamic analysis of T and inverse T-shape floating breakwater in oblique wave, *European Journal of Mechanics/B Fluids* (ELSEVIER), [SCI, IF-2.5]  
DOI: <https://doi.org/10.1016/j.euromechflu.2025.204274>
118. Anuradha Biswas, Arijit Das and **Soumen De** (2025) Wave diffraction by axisymmetric and nonaxisymmetric prolate spheroid submerged in infinite depth water having surface tension, *Physics of Fluids* (American Institute of Physics- AIP Publishing), 37(5). [SCI, IF-4.1]. (Accepted)

### c) Conference Proceedings and Book Chapters:

1. **Soumen De** and B.N. Mandal, (2007) Water wave scattering by two partially immersed barriers - an alternative method of solution, *Proceedings of 22<sup>nd</sup> International Workshop on Water Waves and Floating Bodies*, (Publisher: Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia), 53-56. ISBN: 978-3-540-73278-5  
[http://www.iwwwfb.org/Abstracts/iwwwfb22/iwwwfb22\\_14.pdf](http://www.iwwwfb.org/Abstracts/iwwwfb22/iwwwfb22_14.pdf)
2. **Soumen De** and B.N. Mandal, (2011) Transmission of water waves through apertures in a pair of thin vertical barriers, *Proceedings of 26<sup>th</sup> International Workshop on Water Waves and Floating Bodies* (Publisher: Department of Naval Architecture and Marine Engineering, National Technical University of Athens, Greece), 33-36. ISBN: 978-9-602-54694-9.  
[http://www.iwwwfb.org/Abstracts/iwwwfb26/iwwwfb26\\_09.pdf](http://www.iwwwfb.org/Abstracts/iwwwfb26/iwwwfb26_09.pdf)
3. Sandip Paul and **Soumen De**, (2014) Scattering of Water Wave by Porous Bed Topography in an Ice Cover Ocean, *Applied Mathematics, Springer Proceedings in Mathematics & Statistics* (Publisher: Springer), 146, 257-269. ISBN: 978-81-322-2546-1. [SCOPUS]  
DOI: [https://doi.org/10.1007/978-81-322-2547-8\\_26](https://doi.org/10.1007/978-81-322-2547-8_26)
4. **Soumen De** and B. N. Mandal, (2015) Water wave scattering by two submerged equal vertical plates, *Proceedings of 7<sup>th</sup> Hydroelasticity in marine technology* (Publisher: Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Croatia), 191-202. ISBN: 978-953-95746-2-6.  
<http://bib.irb.hr/prikazi-rad?&rad=777036>
5. Sandip Paul and **Soumen De**, (2018) Wave scattering by a submerged plate in a two-layer fluid of finite depth, *AIP Conference Proceedings* (Publisher: American Institute of Physics), 1975, 030032. [SCOPUS]  
DOI: <https://doi.org/10.1063/1.5042202>
6. B.C. Das, **Soumen De**, B.N. Mandal, (2018) The Problem of Oblique Scattering by a Thin Vertical Submerged Plate in Deep Water Revisited, *Proceedings of 4<sup>th</sup> International Conference on Mathematics and Computing ICMC 2018, Series: Mathematics and Computing, Springer Proceedings in Mathematics & Statistics* (publisher: Springer), 253, 225-236. [SCOPUS]  
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7. Sandip Paul and **Soumen De**, (2018), Scattering of Water Waves by a Rectangular Submarine Trench in an Ice-Covered Ocean, *Proceedings of 2<sup>3rd</sup> Symposium on Theory and Practice of Shipbuilding*, (Publisher : Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture (FESB), University of Split, Croatia), 23, 17-25. ISBN: 978-953-290-085-9.  
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8. Sandip Paul and **Soumen De**, (2019) Water wave scattering by asymmetric trench beneath ice cover, *Proceedings of 34<sup>th</sup> International Workshop on Water Waves and Floating Bodies* (Publisher: School of Mathematical and Physical Sciences, The University of Newcastle, Australia), 145-148. ISBN: 978-0-646-80052-3.  
[http://www.iwwwfb.org/Abstracts/iwwwfb34/iwwwfb34\\_36.pdf](http://www.iwwwfb.org/Abstracts/iwwwfb34/iwwwfb34_36.pdf)
9. B.C. Das, **Soumen De**, B.N. Mandal , (2019) Oblique scattering by a thick rectangular barrier in deep water, *Proceedings of 34<sup>th</sup> International Workshop on Water Waves and Floating Bodies* (Publisher: School of Mathematical and Physical Sciences, The University of Newcastle, Australia), pp.25-28. ISBN: 978-0-646-80052-3.  
[http://www.iwwwfb.org/Abstracts/iwwwfb34/iwwwfb34\\_07.pdf](http://www.iwwwfb.org/Abstracts/iwwwfb34/iwwwfb34_07.pdf)
10. B.N. Mandal and **Soumen De**, (2020), Use of Galerkin Technique in Some Water Wave Scattering Problems Involving Plane Vertical Barriers, *In the book of Applied Mathematical Analysis: Theory, Methods, and Applications. Studies in Systems, Decision and Control* (Publisher: Springer), **177**, 405-432. ISBN 978-3-319-99918-0. [SCOPUS]  
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11. B.C. Das, **Soumen De**, B.N. Mandal , (2020) Oblique Scattering by Thin Vertical Barriers in Finite Depth Water, *In the book of Mathematical Methods in Engineering and Applied Sciences*, (Publisher: CRC Press), 49-65. ISBN: 978-0-367-35977-5. [SCOPUS]  
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12. Uma Basu, Sandip Paul and **Soumen De**, (2021) Interface wave diffraction by a permeable thin barrier, *Proceedings of 14<sup>th</sup> International Conference on Vibration Problems, Crete, Greece (ICOVP 2019). Series: Lecture Notes in Mechanical Engineering*, (Publisher: Springer), 59-69. ISBN: 978-981-15-8049-9. [SCOPUS]  
DOI: [https://doi.org/10.1007/978-981-15-8049-9\\_4](https://doi.org/10.1007/978-981-15-8049-9_4)
13. Biman Sarkar and **Soumen De**, (2022) Dissipation of wave energy by thin multiple partially immersed vertical porous walls in water of uniform finite depth, *Mathematics and Computing, Proceedings of 8<sup>th</sup> International Conference on Mathematics and Computing ICMC 2022. Mathematics and Computing, Springer Proceedings in Mathematics & Statistics (publisher: Springer)*, **415**, 497-508. ISBN:978-981-19-9306-0 [SCOPUS]  
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14. Susmita Saha, Satyasan Changdar and **Soumen De**, (2022) Machine Learning Models for the Estimation of the Stability Number of Rubble-Mound Breakwaters & Feature Analysis, *Proceedings of 9<sup>th</sup> Hydroelasticity in marine technology (HYEL 2023), Rome, Italy, July 10th-13th (publisher: CNR-INM Institute of Marine Engineering, National Research Council of Italy)*, 155-164. ISBN: 978-88-7617-054-6 (Hardcover), ISBN: 978-88-7617-055-3 (e-book).  
[https://www.researchgate.net/publication/370659645\\_Machine\\_Learning\\_Models](https://www.researchgate.net/publication/370659645_Machine_Learning_Models)
15. Selina Hossain, Arijit Das and **Soumen De**, (2022) Effects of Flexible Bottom on Generation of Surface Waves by A Moving Oscillatory Disturbance, *Proceedings of 9<sup>th</sup> Hydroelasticity in marine technology (HYEL 2023) Rome, Italy, July 10th-13th. (publisher: CNR-INM Institute of Marine Engineering, National Research Council of Italy)*, 347-357. ISBN: 978-88-7617-054-6 (Hardcover), ISBN: 978-88-7617-055-3 (e-book).  
[https://www.researchgate.net/publication/370659364\\_Effects\\_of\\_Flexible](https://www.researchgate.net/publication/370659364_Effects_of_Flexible)
16. Susmita Saha and **Soumen De**, (2023) Damage level estimation of rubble-mound breakwaters using deep artificial neural network, *Proceedings of 9<sup>th</sup> International Conference on Mathematics and*



Computing ICMC 2023. *Lecture notes in Networks and Systems* (publisher: Springer), **697** 57-68.  
 ISBN: 978-981-99-3080-7 [SCOPUS]  
 DOI: [https://doi.org/10.1007/978-981-99-3080-7\\_5](https://doi.org/10.1007/978-981-99-3080-7_5)

17. Anjan Sasmal and **Soumen De, (2023)** Hydroelastic analysis of wave diffraction by multiple flexible porous plates, *Proceedings of 12<sup>th</sup> International Workshop on Ship and Marine Hydrodynamics* (IWSH 2023), *IOP Science conference series on Materials Science and Engineering*, **1288**, 012010 (ISSN: 17578981) [SCOPUS].  
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18. Sandip Paul, Nantu Sarkar and **Soumen De, (2024)** Propagation of acoustic gravity waves in a finite depth water over a magnetoelastic half space, *Proceedings of 15<sup>th</sup> International Conference on Vibration Problems* (ICOVP-2023), *Lecture Notes in Mechanical Engineering*, (publisher: Springer). 1-9. ISBN: 978-981-99-5921-1 (Hardcover), ISBN: 978-981-99-5922-8 (e-book) [SCOPUS]  
 DOI: [https://doi.org/10.1007/978-981-99-5922-8\\_1](https://doi.org/10.1007/978-981-99-5922-8_1)
19. Priya Sharma, Biman Sarkar and **Soumen De, (2024)** Analysis of oblique wave scattering by a thick bottom-standing barrier placed in between a pair of thin partially immersed barriers, *Proceedings of 10<sup>th</sup> International Conference on Mathematics and Computing: ICMC 2024*, Volume 1, *Lecture notes in Networks and Systems* (publisher: Springer) **964**, 1-14, ISBN: 978-981-97-2066-8. [SCOPUS]  
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20. Priya Sharma, **Soumen De** and Rupanwita Gayen (2024) Study on Wave Scattering by Inverse T-Type Bottom-Standing Breakwater, *Proceedings of the ASME 2024 43rd International Conference on Offshore Mechanics and Arctic Engineering (OMAE)*, **Volume 5A: Ocean Engineering**, Paper No: OMAE2024-125111, V05AT06A016; 11 pages. ISBN: 978-0-7918-8782-0. [SCOPUS]  
 DOI: <https://doi.org/10.1115/OMAE2024-125111>
21. Biman Sarkar and **Soumen De (2025)** An Efficient Integral Equation Approach to Study Wave Interaction by a Bottom-Mounted Rectangular Barrier in Presence of a Pair of Partially Immersed Thin Vertical Barriers, *Book Chapter 8, Methods of Mathematical Modeling: Advances and Applications* (Publisher: Elsevier). ISBN: 978-0-4431-3317-6, eBook ISBN: 978-0-4431-3316-9 (Article In Press) [SCOPUS].  
<https://shop.elsevier.com/books/methods-of-mathematical-modeling/dutta/978-0-443-13317-6>  
 DOI: <https://doi.org/10.1016/B978-0-44-313317-6.00013-5>
22. Anuradha Biswas, Arijit Das and **Soumen De (2025)** Wave structure interaction problem on an immersed prolate spheroid in the presence of surface tension, *Proceedings of 11<sup>th</sup> International Conference on Mathematics and Computing: ICMC 2025*, Volume 1, *Lecture notes in Networks and Systems* (publisher: Springer) ISBN: 978-981-96-6940-0 (Article In Press). [SCOPUS]  
<https://link.springer.com/book/9789819669400>
23. Susmita Saha, Satyasan Changdar and **Soumen De (2025)** Physics Informed Neural Networks for Predicting the Stability Number of Rubble-Mound Breakwaters, *International Conference on Computations and Data Science (CoDS-2024)*, *Springer Proceedings in Mathematics & Statistics* (Publisher: Springer) (Article In Press). [SCOPUS]

## 11. List of past/present research collaborators:

- 1) Prof. B. N. Mandal, Professor(Retd.), PAMU, ISI, Kolkata
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- 27) Ms. Soumini Dolui, CSIR research fellow, Dept. of Applied Mathematics, CU
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- 33) Ms. Priya Sharma, Research scholar, Dept. of Applied Mathematics, CU.
- 34) Mr. Koushik Nandi, Assistant Professor, Dept. of Mathematics, Budge Budge Institute of Technology, Kolkata.
- 35) Ms. Anuradha Biswas, ISI research fellow, PAMU, ISI Kolkata
- 36) Ms. Riyam Biswas, Department of Mathematics, Vidyannagar College, West Bengal, India
- 37) Ms Nabanita Sadhukhan, Dept. of Applied Mathematics, CU
- 38) Mr. Biplab Mal, UGC research fellow, Dept. of Applied Mathematics, CU.

## 12. Reviewer of journal papers:

- 1) Wave Motion
- 2) Ocean Engineering

- 3) Physics of Fluids
- 4) Journal of Engineering Mathematics
- 5) Zeitschrift für Angewandte Mathematik und Mechanik
- 6) Journal of Marine Science and Application
- 7) Indian Journal of Physics
- 8) Mechanics Based Design of Structures and Machines, An International Journal
- 9) Waves in Random and Complex Media
- 10) Geomechanics and Engineering, An International Journal
- 11) Journal of Ocean Engineering and Science
- 12) International Journal of Mathematics and Mathematical Sciences
- 13) Journal of Engineering Mechanics
- 14) Complexity
- 15) Ships and Offshore Structures
- 16) IEEE Access
- 17) Frontiers in Anesthesiology
- 18) Physics of Fluids
- 19) International Journal of Mechanical Sciences
- 20) Geosciences, MDPI
- 21) Journal of Marine Science and Engineering
- 22) Calcutta Mathematical Society
- 23) MDPI Fractal Fract
- 24) Pramana - Journal of Physics
- 25) Experimental Techniques
- 26) Heat Transfer
- 27) Journal of Applied Mathematics and Computational Mechanics
- 28) National Academy Science Letters
- 29) Physica
- 30) Archive of applied mechanics
- 31) Mathematics, MDPI
- 32) Heat Transfer - Asian Research
- 33) FRACTAL AND FRACTIONAL, MDPI
- 34) JOURNAL OF THERMAL STRESSES
- 35) NUMERICAL HEAT TRANSFER PART A-APPLICATIONS
- 36) NUMERICAL HEAT TRANSFER PART B-FUNDAMENTALS
- 37) PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES
- 38) Engineering
- 39) International Journal of Numerical Methods for Heat and Fluid Flow
- 40) International Journal of Applied Mechanics
- 41) International Journal of Ambient Energy
- 42) Electromagnetic Biology and Medicine
- 43) National Academy Science Letters
- 44) Cogent Engineering (Open Research)
- 45) Proceedings of the National Academy of Sciences, India Section A: Physical Sciences
- 46) Journal of Offshore Mechanics and Arctic Engineering
- 47) The European Physical Journal E
- 48) Geosystem Engineering
- 49) IEEE Transactions on Industrial Informatics
- 50) Computer Methods in Biomechanics and Biomedical Engineering
- 51) Wood Material Science and Engineering
- 52) Mathematical Methods in the Applied Sciences
- 53) The ANZIAM Journal
- 54) Advanced Theory and Simulations

### 13. Training courses/ workshop/Refresher Course attended

Sl. No.	Program	Duration	Organized by
1.	Orientation Programme	Three Weeks	UGC-Academic Staff College, Calcutta University, Kolkata, India
2	Refresher Course	Three Weeks	UGC-Academic Staff College, Calcutta University, Kolkata, India
3	Refresher Course	Three Weeks	UGC-Academic Staff College, Jadavpur University, Kolkata, India
4	International Workshop on Recent Advances in Computational Fluid Dynamics	One Week	Department of Mathematics, IIT, Guwahati
5	First National Workshop on Techniques in Applied Mathematics	Two Weeks	Department of Applied Mathematics, University of Calcutta
6	Second National Workshop on Techniques in Applied Mathematics	One Weeks	Department of Applied Mathematics, University of Calcutta
7	Third National Workshop on Techniques in Applied Mathematics	One Weeks	Department of Applied Mathematics, University of Calcutta
8	Winter School on Recent Trends in Mathematical Methods	One Week	Department of Applied Mathematics, University of Calcutta
9	Workshop on “Nonlinear Differential Equations: Dynamics of Complex Systems”.	One Week	Department of Applied Mathematics, University of Calcutta (NPDE – TCA Program of Mathematics, IIT, Mumbai)
10	Short term course in DIGITAL INDIA	One Week	UGC-Academic Staff College, Calcutta University, Kolkata, India

### 14. Details of invited lectures / papers presented in Conferences / Seminars, etc. (by self or by co-authors)

Sl.No.	Title of the paper	Title of Conference/Seminar	Organized by	
1	A simple method to solve the problem of water wave scattering by two submerged plane vertical barriers.	International Conference on Application of Fluid Mechanics in Industry and Environment, 2006	Physics and Applied Mathematics Unit, Indian Statistical Institute, Calcutta	International
2	Transmission of water waves through apertures in a pair of thin vertical barriers	International Workshop on Water Waves and Floating Bodies, 2011	Athens, Greece.	International
3	Water wave scattering by two vertical barriers	International conference on Frontiers in Fluid Mechanics,	Bangalore University	International
4	Water wave scattering by two vertical barriers submerged gaps at the same level	National conference on mathematical analysis and its applications, 2011	Department of Mathematics, Tripura University	National
5	Water wave scattering by two nearly vertical barriers	National conference on Mathematical analysis and Applications b	Department of Mathematics, Calcutta University	National
6	Water wave scattering by bottom undulations in the presence of a submerged vertical plate	National conference on mathematics and applications -Recent Trends	Department of Mathematics, University of Burdwan	National
7	Water wave scattering by two partially immersed vertical barriers	National symposium on mathematics and its applications	Department of Mathematics, University of Burdwan	National
8	Water wave scattering by two submerged equal vertical plates	National conference on Frontiers in Applied Mathematics, 2012	M.E.S College, Bangalore	National
9.	Scattering of waves by a Dock in Presence of Bottom Undulation	National Seminar on Mathematical Analysis and Applications: Present Perspective, 2012	Calcutta Mathematical Society	National
10.	Scattering of Water Wave by Porous Bed Topography in an Ice Cover Ocean	International conference Emerging Trends in Applied Mathematics: Dedicated to the memory of Sir Asutosh Mookerjee and Contribution of S.N.Bose, M.N.Saha and	Department of Applied Mathematics, University of Calcutta	International

		N.R.Sen.		
11.	Numerical Simulation of Nonlinear Newtonian Blood Flow Through a Stenosed Artery	5 <sup>th</sup> International Conference on Fluid Mechanics and Fluid Power, 2014	Department of Mechanical Engineering, IIT Kanpur	International
12	Scattering of surface wave by a thin vertical plate submerged in a two layered fluid	3rd ICAFD-2016	ISM Dhanbad	International
13	Water wave scattering by Porous Barriers	National Conference on Advances in Mathematical Sciences, 2016	Department of Mathematics, Gauhati University	National
14	Water wave scattering by two vertical non identical submerged plates	National Seminar on Advances in Mathematical Sciences, NSAMS-2018	Department of Mathematics, Gauhati University	National
15	Wave Scattering by a Submerged Plate in a Two Layer Fluid of Finite Depth	International Conference on Frontiers in Industrial and Applied Mathematics	National Institute of Technology, Hamirpur	International
16	The effect of surface tension on water wave scattering by rectangular trench	International Conference on Mathematical Modelling, Applied Analysis and Computation- 2018	JECRC University, Jaipur	International
17	Scattering of Water Waves by a Rectangular Submarine Trench in an Ice-Covered Ocean	23rd Symposium on Theory and Practice of Shipbuilding SORTA 2018, Croatia	University of Split Chair of Naval Architecture, FESB, Croatia	International
18	Water wave scattering by asymmetric trench beneath ice cover	International Workshop on Water Waves and Floating Bodies, 2019	University of Newcastle, Australia	International
19	Interaction of Ocean waves with floating and submerged bodies	Mathematical Modeling and its Application, 2020	Department of Mathematics, GOVT. GENERAL DEGREE COLLEGE, MURAGACHHA	National
20	Water Waves Scattering by a Rectangular Submarine Trench in an Ice-Cover Ocean	6 <sup>th</sup> National Seminar on Recent Trends in Applied Sciences and Humanities 2019	DIATM, Durgapur	National
22	Interaction of Ocean waves with floating and submerged bodies	"Science and Technology: Rural development" in the technical session of "Mathematical, Statistical and Computational Sciences" 2020	Indian Science Congress Association (Kolkata Chapter) & Surendranath College, Kolkata	National
23	Dissipation of wave energy by thin multiple partially immersed vertical porous walls in water of uniform finite depth	8 <sup>th</sup> International Conference on Mathematics and Computing ICMC 2022	Department of Mathematics School of Advanced Sciences Vellore Institute of Technology, Vellore, Tamil Nadu	International
24.	Waves interactions with floating and submerged bodies	Mathematical Equations and Graphs to Combat Natural Challenges, 2022	Department of mathematics, Swami Vivekananda University, Barrackpore, Kolkata	National
25.	Machine Learning Models for the Estimation of the Stability Number of Rubble-Mound Breakwaters and Feature Analysis	9th International Conference on Hydroelasticity in Marine Technology, HYEL22, 10-13 July 2022, Rome, Italy.	The Institute of Marine Engineering (Istituto di Ingegneria del Mare, INM) Rome, Italy	International
26	Effects of Flexible Bottom on Generation of Surface Waves by An Oscillatory Disturbance	9th International Conference on Hydroelasticity in Marine Technology, HYEL22, 10-13 July 2022, Rome, Italy.	The Institute of Marine Engineering (Istituto di Ingegneria del Mare, INM) Rome, Italy	International
27	Damage Level Estimation of Rubble-Mound Breakwaters Using Deep Artificial Neural Network	9th International Conference on Mathematics and Computing, ICMC 2023, January 6-8, 2023	Birla Institute of Technology and Science, Pilani, GOA, INDIA.	International
28	Propagation of acoustic gravity waves in a finite depth water over a magnetoelastic half space	15 <sup>th</sup> International Conference on Vibration Problems (ICOVP-2023), 05- 09 February 2023	Qatar University in Doha, Qatar	International
29	Interaction of Ocean Waves with Floating and Submerged Bodies	State level Seminar, 28th April, 2023	Nabagram Hiralal Paul College, West Bengal	National
30	An integral equation method for oblique wave interaction by two thin vertical barriers over an asymmetric trench.	International Workshop on Mathematical and Computational Methods in Science and Engineering"	Indian Institute of Technology Ropar, Panjab	International

		during 02-13 June 2023		
31	Hydroelastic analysis of wave diffraction by multiple flexible porous plates	The 12th International Workshop on Ship and Marine Hydrodynamics (IWSH 2023) August 28-September 1, 2023	Aalto University, Finland	International
32	Study on Wave Scattering by Inverse T-Type Bottom-Standing Breakwater	The 43 <sup>rd</sup> International Conference on Offshore Mechanics and Arctic Engineering – OMAE 2024, June 9 - 14, 2024	Singapore Expo, Singapore	International
33	Interaction of Ocean waves with floating and submerged breakwater	Recent Development of Mathematical sciences on biological and dynamical systems with fuzzy and fractional environments, June, 19–29, 2024	Department of Mathematics, Mahadevananda Mahavidyalaya	National
34	Hydroelastic analysis of wave scattering by multiple bottom standing flexible permeable barriers in uniform finite depth	The ninth International Conference on Ships and Offshore Structures (ICSOS), 8-12 September 2024	Department of Ocean Engineering, The Indian Institute of Technology Madras	International
35	Water wave scattering by Submerged And Floating Breakwaters	2nd International Conference on Exploring Advances in Mathematical Sciences, December 19-20, 2024	University of Gour Banga, India	International
36.	Hydrodynamic impact of an inverted $\Pi$ -shape porous breakwater	The 3 <sup>rd</sup> International Conference in South East Asia on the Future of Maritime Technology & Use of the Sea 202526-28 February, 2025	Faculty of International Maritime Studies, Kasetsart University, Sriracha, Chonburi, 20230, Thailand	International
37.	An integral equation method for water wave interaction problems	International Workshop on Mathematical Techniques for Time dependent Water Wave problems, March 24-25, 2025	Department of Mathematics, School Advanced Sciences, Vellore Institute of Technology, Vellore, India	International
38.	An integral equation method for wave interaction by breakwaters	International Workshop on Water Wave Phenomena: Mathematical Approaches to Offshore Structures, March 24-28, 2025	Department of Mathematics, School Advanced Sciences, Vellore Institute of Technology, Vellore, India	International

## 15. Seminars/Conferences/Workshops organized

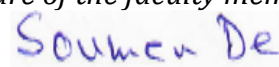
- a. Organized Winter School on Recent Trends in Mathematics, Department of Applied Mathematics, December 14-21, 2011.(Joint Coordinator)
- b. Organized National Seminar on “Recent Advances in Techniques of Applied Mathematics: Computational and Analytical”, March 14 – 16,2012 (Joint Coordinator)
- c. Organized National Seminar on “Mathematics & Mathematical Sciences” December 27 – 28, 2012 (Joint Coordinator)
- d. Organized National Seminar on "Nonlinearity, Complex Dynamics and Chaos in Economics and Finance" March 13-14, 2013. (Joint Coordinator)
- e. Organized International Conference "Emerging Trends in Applied Mathematics: Dedicated to the Memory of Sir Asutosh Mookerjee and Contributions of S.N. Bose, M.N. Saha and N.R.Sen" during February 12-14, 2014.(Joint Coordinator)
- f. Organized Workshop on Trends and Challenges in Astronomy and Astrophysics in Department of Applied Mathematics in collaboration with IUCAA Resource Centre, Kolkata. September 10-12, 2015. .(Joint Coordinator)
- g. Organized "Recent Advances in Applied Mathematics.(Joint Coordinator) December 26-28,2016
- h. Organized "National Symposium ON Recent Trends in Quantum Theory 2017(RTQT17)" March 09- 10, 2017.(Joint Coordinator)
- i. National Symposium On Recent Trends in Applied Mathematics 2018 (RTAM18) Thrust areas: Computational Mathematics and Quantum Mechanics, March 26-28, 2018- A tribute to Professor Satyendra Nath Bose on his 125th Birth Anniversary.(Joint Coordinator)
- j. National Symposium On Recent Trends in Applied Mathematics 2019 (RTAM19) Thrust areas: Computational Mathematics and Quantum Mechanics, March 12-14, 2019.(Joint Coordinator)

- k. Recent Advances in Applied Mathematics: Theory and Computation 2021, March 27-29, 2021(Core Member)
- l. National Seminar On Recent Trends in Applied Mathematics 2024 March 14-15, 2024 (RTAM 2024) (Core Member)
- m. National Seminar On Recent Trends in Applied Mathematics and Computing 2025 March 11-12, 2025 (RTAMC 2025) (Joint Coordinator)

## **16. Association with Academic Bodies**

- a. External member of Board of studies, Department of Mathematics, University of Gour Banga, West Bengal
- b. External member of Board of studies, Department of Mathematics, Swami Vivekananda University, Barrackpore, West Bengal
- c. External member of Board of studies, Department of Mathematics, Midnapore College (Autonomous), West Bengal
- d. External member of Board of studies, Department of Mathematics, Centurion University, Odisha
- e. Member of the Governing Body, Shirakole Mahavidyalaya affiliated to the University of Calcutta.

*Signature of the faculty member*



(SOUMEN DE)