

EDUCATION

Indian Institute of Technology Ropar Ph.D. in Fluid Structure Interactions, Advisor: Dr. S. C. Martha	Rupnagar, Punjab, 140001 2016–2021
Panjab University M.Sc. in Maths. Honors, Marks: 714/1000	Chandigarh, 160014 2006–2008
Panjab University B.Sc. in Maths. Honors, Marks: 2212/3000	Chandigarh, 160014 2003–2006

EXPERIENCE

Indian Institute of Information Technology Una Guest Faculty	Una, Himachal Pradesh July 2022–present
Indian Institute of Technology Ropar Research Fellow – Investigation of Mechanisms of Biological Transport Phenomena on Cellular Network Utilizing Analytical and Computational Tools	Rupnagar, Punjab, 140001 Sep 2021–July 2022
Indian Institute of Technology Ropar JRF – Surface wave interactions with irregular bottom topographies and barriers	Rupnagar, Punjab, 140001 May 2015–December 2015
Chitkara University Assistant Professor	Rajpura, 140601 July 2011–May 2015
Lovely Professional University Lecturer	Phagwara, 144401 August 2008–December 2010

PUBLICATIONS

- [1] **S. Singla**, S. Martha, and T. Sahoo, “Scattering of water waves by a very large floating structure in the presence of porous flexible barriers”, *Submitted*,
- [2] G. Sahoo, **S. Singla**, and S. Martha, “Mitigation of Wave Impact on Sea Wall by a Floating Elastic Plate and a Porous Structure”, *Journal of Offshore Mechanics and Arctic Engineering*, pp. 1–25, 2023.
- [3] G. Sahoo, **S. Singla**, and S. Martha, “Scattering of oblique water waves by thick porous structure and thin elastic plate”, *Ocean Engineering*, vol. 248, p. 110 526, 2022.
- [4] **S. Singla**, H. Behera, S. C. Martha, and T. Sahoo, “Scattering of water waves by very large floating structure in the presence of a porous box”, *Journal of Offshore Mechanics and Arctic Engineering*, vol. 144, p. 041 904, 2022.
- [5] **S. Singla**, H. Behera, S. Martha, and T. Sahoo, “Scattering of obliquely incident water waves by a surface-piercing porous box”, *Ocean Engineering*, vol. 193, p. 106 577, 2019.

- [6] **S. Singla**, T. Sahoo, S. Martha, and H. Behera, “Effect of a floating permeable plate on the hydroelastic response of a very large floating structure”, *Journal of Engineering Mathematics*, vol. 116, pp. 49–72, 2019.
- [7] **S. Singla**, S. Martha, and T. Sahoo, “Mitigation of structural responses of a very large floating structure in the presence of vertical porous barrier”, *Ocean Engineering*, vol. 165, pp. 505–527, 2018.
- [8] **S. Singla**, S. Martha, and T. Sahoo, “Effect of bottom-standing porous barrier for mitigating hydroelastic response of a very large floating structure”, in *Proceedings of the 5th International Conference on Ship and Offshore Technology ICSOT 2017*, Dec. 7, 2017.

CONFERENCES/WORKSHOPS/SEMINARS

- Presented a paper entitled “***Scattering of water waves by flexible porous breakwater in the presence of an elastic plate***” in the Mathematics of Sea Ice and Ice Sheets Virtual Workshop, hosted by CARMA, funded by Australian Mathematics Sciences Institute and Australian Mathematical Society, from November 9-13, 2020.
- Presented a paper entitled “***Effect of flexible porous breakwater in mitigating hydroelastic responses of a very large floating structure***” in the International Conference on Advances in Differential Equations and Numerical Analysis (ADENA2020), held at Indian Institute of Technology Guwahati, from October 12 - 15, 2020.
- Attended workshop “ ***Time Domain Analysis on Hydroelasticity Problems***” held at Indian Institute of Technology Kharagpur from December 9-13, 2019.
- Presented a paper entitled “***Boundary value problem involving scattering of surface gravity waves by a porous box***” at the CYNOSURE, held at Indian Institute of Technology Ropar on December 03, 2019.
- Presented a paper entitled “***Scattering of surface gravity waves by a porous box***” at the 85th Annual Conference of Indian Mathematical Society, held at Indian Institute of Technology Kharagpur from November 22-25, 2019.
- Presented a poster entitled “***Role of flexible porous barrier in mitigating structural responses of VLFS***” at the ICIAM-2019, held at Valencia, Spain, from July 15-19, 2019.
- Attended GIAN course “ ***Analysis and design of Coastal Structures***” held at Indian Institute of Technology Kharagpur from December 10-15, 2018.
- Attended ATM workshop “ ***Continuum Mechanics: Principles and Applications*** ” held at Panjab University, Chandigarh from November 19-24, 2018.
- Presented a poster entitled “***Attenuation of hydroelastic responses of very large floating structure in the presence of floating porous plate***” at Cynosure held at Indian Institute of Technology Ropar on October 12, 2018.
- Presented a paper entitled “***Effect of bottom-standing porous barrier on mitigating structural responses of a very large floating structure***” in the international Conference on Ship and Offshore Technology ICSOT 2017, held at Indian Institute of Technology Kharagpur, from December 7-8, 2017.
- Presented a paper entitled “***Scattering of water waves by floating structure in the presence of a vertical permeable barrier***” in Cynosure-2017 held at Indian Institute of Technology Ropar, on May 13, 2017.

- Attended GIAN course “ *Computational Methods in Hydroelasticity*” held at Indian Institute of Technology Kharagpur from December 12-16, 2016.
- Presented a paper entitled “*Effectiveness of vertical permeable barriers for mitigating structural response of a very large floating structure*” in the international Conference on Recent Advances in Theoretical Computational Partial Differential Equations with Applications” held at University Institute of Engineering and Technology, Panjab University, Chandigarh during December 05-09, 2016.
- Attended “ *National Program on Differential Equations: Theory, Computation & Applications(NPDE-TCA)* ” held at Indian Institute of Technology Ropar, from May 16 – June 4, 2016.
- Presented a poster entitled “*Wave Trapping by Vertical Porous Structure*” at Cynosure held at Indian Institute of Technology Ropar on November 7, 2015.
- Attended ATM workshop “ *Conservation Laws with Application in continuum Mechanics* ” held at Panjab University, Chandigarh from December 2-7, 2014.
- Attended TEW “ *Finite Group Theory*” held at Punjabi University, Patiala from May 27-June 2, 2014.

COMPUTATIONAL SKILLS

- MATLAB
- FreeFEM++
- LATEX, MSOffice

DECLARATION

I certify that the foregoing information is correct and complete to the best of my knowledge and belief, and nothing has been concealed/distorted.

Place: Una (India)

Date: 30.06.2023

Sd/-
(SOFIA SINGLA)