



Dr. Suraj Goyal

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Contact Information	Dr. Suraj Goyal Assistant Professor Department of Mathematics J.C Bose Univ. of Sci. & Tech., YMCA Faridabad-121006, INDIA	<i>Mobile:</i> +91-9417728292 <i>E-mail:</i> surajgoyal87@gmail.com <i>E-mail:</i> surajgoyal87@jcbouseust.ac.in
Academic Experience	• <i>Feb 2020–Present</i> Assistant Professor, J.C. BOSE University of Science and Technology, YMCA, Faridabad. • <i>Aug 2014–Jan 2020</i> Assistant Professor, DAV University, Jalandhar.	
Admin Experience	• <i>May 2026–Present</i> Assistant Dean Academic Affairs, J.C. Bose UST, YMCA, Faridabad. • <i>April 2022–Present</i> Secretary, Staff Club, J.C. Bose UST, YMCA, Faridabad.	
Research Interests	Continuum Mechanics- Primarily interested in solving various elastic wave propagation related problems in classical as well as non classical theories of elasticity.	
Research Projects	• Working as Co-PI/ Co-coordinator in the DST-PURSE (Promotion of University Research and Scientific Excellence) research project (Ref. No: SR/PURSE/2022/126) with total sanction amount Rs. 6,91,58,560/- (Rupees Six Crore Ninety One Lakh Fifty Eight Thousand Five Hundred Sixty only) for a period of 4 Years (2023-2027) at J. C. Bose University of Science & Technology, YMCA, Faridabad. • Working as PI in the SEED money grant with total sanction amount Rs. 2,00,000/- (Rupees Two Lakhs only) for a period of 2 Years (2023-2025) at J. C. Bose University of Science & Technology, YMCA, Faridabad.	
Students Guided	03 PhD Students (ongoing): Aakash Kumar (CSIR-JRF), Dhanisha Rani (UGC-JRF), Dhruv Hans. 34 PG Dissertation Students (awarded).	

Academic Bodies	• Member (Membership No.: GYSRXB) and Reviewer (MathSciNet Reviewer Number: 139733) of AMS (American Mathematical Society) since 2018.
Membership	• Lifetime member (Membership No.: L/2019/39) of IMS (Indian Mathematical Society). • Lifetime member (Membership No.: L41295) of ISCA (Indian Science Congress Association).
Published in Journals	1. Dhanisha Rani, Suraj Goyal, S.K. Tomar and S.C. Martha (2026). Plane wave propagation in an elastic solid undergoing uniform angular acceleration. <i>Journal of Vibration Engineering & Technologies</i>, 14(420), 1–22. DOI: https://doi.org/10.1007/s42417-026-02638-x. Publisher- Springer, Country- Switzerland (Europe), Quartile- Q1 2. Manjeet Kumari, Pradeep Kaswan, Suraj Goyal, Li-Yun Fu, Nianqi Li, Jai Bhagwan and Manjeet Kumar (2026). Rayleigh-type waves in cracked porous solids with penny-shaped inclusions: Effects of local fluid flow and boundary conditions. <i>Chinese Journal of Physics</i>, 102(12), 820–839. DOI: https://doi.org/10.1016/j.cjph.2026.04.020. Publisher- Elsevier, Country- Taiwan (Asia), Quartile- Q2 3. Aakash Kumar and Suraj Goyal (2024). Plane dilatational and shear waves in a chiral porous thermoelastic medium under strain gradient theory. <i>International Journal of Numerical Methods for Heat & Fluid Flow</i>, 34(12), 4233–4256. DOI: https://doi.org/10.1108/HFF-06-2024-0453. Publisher- Emerald Group Pub. Ltd., Country- United Kingdom (Europe), Quartile- Q1 4. Suraj Goyal, Jai Bhagwan, Rabia Kamra and S.K. Tomar (2022). Plane dilatational and shear waves in a uniformly rotating thermo-viscoelastic material with voids. <i>Mechanics of Advanced Materials and Structures</i>, 29(26), 4779–4799. DOI: https://doi.org/10.1080/15376494.2021.1939204. Publisher- Taylor & Francis, Country- United Kingdom (Europe), Quartile- Q1 5. Suraj Goyal, Jai Bhagwan and S.K. Tomar (2020). Elastic waves at the plane interface of swelling porous half-space and viscoelastic half-space with voids. <i>International Journal of Mechanical Sciences</i>, 188, 105942. DOI: https://doi.org/10.1016/j.ijmecsci.2020.105942. Publisher- Elsevier, Country- United Kingdom (Europe), Quartile- Q1 6. Suraj Goyal, Dilbag Singh and S.K. Tomar (2016). Rayleigh-type surface waves in a swelling porous half-space. <i>Transport in porous media</i>, 113(1), 91–109. DOI: https://doi.org/10.1007/s11242-016-0681-3. Publisher- Springer, Country- Netherlands (Europe), Quartile- Q1 7. Suraj Goyal and S.K. Tomar (2015). Reflection/Refraction of a Dilatational Wave at a Plane Interface Between Uniform Elastic and Swelling Porous Half-Spaces. <i>Transport in porous media</i>, 109(3), 609–632. DOI: https://doi.org/10.1007/s11242-015-0539-0. Publisher- Springer, Country- Netherlands (Europe), Quartile- Q1

8. **Suraj Goyal** and S.K. Tomar (2015). Reflection and Transmission of Inhomogeneous Waves at the Plane Interface between two Dissimilar Swelling Porous Half-Spaces. *Special Topics & Reviews in Porous Media: An International Journal*, 6(1), 51–69.
DOI: <https://doi.org/10.1615/SpecialTopicsRevPorousMedia.v6.i1.50>.
Publisher- **Begel House Inc.**, Country- **Connecticut (USA)**, Quartile- **Q2**
9. S.K. Tomar and **Suraj Goyal** (2013). Elastic waves in swelling porous media. *Transport in porous media*, 100(1), 39–68.
DOI: <https://doi.org/10.1007/s11242-013-0204-4>.
Publisher- **Springer**, Country- **Netherlands (Europe)**, Quartile- **Q1**

**In the
Proceedings
of
Conferences**

1. **Suraj Goyal** and S.K. Tomar (2013). Rayleigh waves in a swelling porous half-space, *ACOUSTICS 2013 NEW DELHI*, pp. 829–834, November 10–15, 2013, New Delhi, India.

**Accepted/
Communi-
cated/
Under
Preparation**

1. Aakash Kumar and **Suraj Goyal** (2026). Reflection of Plane Elastic Waves at a Stress-Free Boundary in a Chiral Thermoelastic Medium with Voids under Strain Gradient Theory (Under Communication)
2. **Suraj Goyal** (2026). Love-type surface waves in a swelling porous half-space. (Under Preparation)

**Books
Edited/
Published**

Tom M. Apostol, Jitender Singh, **Suraj Goyal** (2022). Calculus: One Variable Calculus–An Indian Adaptation, Volume 1, Second Edition, *Wiley India Pvt. Ltd.* ISBN: 978-9354642630. Links: [Wiley](#), [Amazon](#).

**Awards/
Scholarship
Received**

- Received Research Publication Award for 2020-21 from Research and Development Section of J.C. BOSE University of Science and Technology, YMCA, Faridabad.
- Received SRF (Senior Research Fellowship) from Council for Scientific and Industrial Research (CSIR), India, Jan 2013- July 2014.
- Received JRF (Junior Research Fellowship) from Council for Scientific and Industrial Research (CSIR), India, Jan 2011- Dec 2012.
- Received NBHM Postgraduate Scholarship during M.Sc from National Board of Higher Mathematics (NBHM).
- Qualified written exams for NBHM pre-Ph.D. entrance (Feb. 2010) during M.Sc.

**Invited Talks
/ Resource
Person**

1. Delivered an invited talk on *Wave Reflection and Refraction at the Interface Between Swelling Porous and Viscoelastic Media: Energy and Interaction Effects* in the Workshop on *Wave Dynamics Theory*, organized by the Department of Mathematics, IIT Ropar, Punjab, during March 5–7, 2026.

2. Delivered a lecture on *Exploring Mathematics Using MATLAB*, organized by the PG Department of Mathematics, Guru Nanak College, Sri Muktsar Sahib, on October 17, 2025.
3. Invited as a guest speaker on the topic *Importance of Mathematics in Daily Life* on Radio NGF Palwal 90.4 FM on December 29, 2025.
4. Delivered nine lectures in the three-day workshop on *Hands-on Experience on L^AT_EX*, organized by the Research & Development Cell, J. C. Bose University of Science and Technology, YMCA, Faridabad, during August 12–14, 2025.
5. Served as a resource person in the *Workshop on Finalization of Principles of Mathematical Analysis in Punjabi by Walter Rudin*, organized by the Central Institute of Indian Languages, Mysore, during June 24–July 2, 2025.
6. Delivered four lectures and conducted two tutorial sessions in the *One-Week National Workshop on MATLAB, L^AT_EX & Reference Management*, organized by the Department of Mathematics, Gurugram University, Gurugram, during February 24–28, 2025.
7. Delivered a lecture on *MATLAB: Basics and Hands-on Training* at Aggarwal College, Ballabgarh, on February 7, 2025.
8. Served as a resource person and chaired two sessions in the International Conference on *Applied Mathematics and Mechanics (ICAMM 2023)*, held at IIT Indore, Madhya Pradesh, India, during October 18–20, 2023.
9. Delivered four lectures in the two-day seminar on *L^AT_EX Software System*, organized by the Research & Development Cell, J. C. Bose University of Science and Technology, YMCA, Faridabad, during February 8–9, 2023.
10. Delivered four lectures in the *Workshop on L^AT_EX*, jointly organized by Pt. Deen Dayal Upadhyay Central Library and the Research & Development Section, J. C. Bose University of Science and Technology, YMCA, Faridabad, on May 12, 2022.
11. Delivered a lecture on *Solving Linear Systems and Eigenvalues Using MATLAB* in the AICTE-QIP sponsored online short-term course on *Implementation of Numerical Methods Using MATLAB*, organized by the Department of Mathematics, IIT Indore, during January 3–8, 2022.
12. Delivered a lecture on *Introduction to Beamer* in the *Three-Day National Workshop on MATLAB and L^AT_EX (NWML)*, organized by the Department of Mathematics, Akal University, Talwandi Sabo, Bathinda, during April 9–11, 2021.
13. Delivered a lecture on *MATLAB for Beginners* in the workshop on *Soft Skills in Mathematics*, organized by the Department of Mathematics, Hans Raj Mahila Maha Vidyalaya, Jalandhar, on December 4, 2020.
14. Delivered a lecture on *MATLAB: An Introduction* and conducted four tutorial sessions in the “One Week TEQIP Workshop on Computational Methods for Solving Differential Equations,” sponsored by NBHM and organized by the Department of Mathematical Sciences, IKG Punjab Technical University, Jalandhar, India, during December 25–30, 2019.

**Workshops /
Conferences
Organized**

- Served as Convener for the “Two-Week NCM Instructional School for Teachers on Principles of Continuum Mechanics,” jointly organized by the National Centre for Mathematics (NCM), IIT Bombay, and TIFR Mumbai, and sponsored by NBHM, held at the Department of Mathematics, J. C. Bose University of Science and Technology, YMCA, Faridabad, India, during June 3–15, 2024.
- Served as Coordinator for the “Two-Day Workshop on Applications of Mathematics,” sponsored by the Haryana State Council for Science, Innovation and Technology (HSCSIT), organized by the Department of Mathematics, J. C. Bose University of Science and Technology, YMCA, Faridabad, India, during August 9–10, 2021.
- Served as Organizing Secretary for the “Expert Talks on the Legacy of Srinivasa Ramanujan,” sponsored by the Haryana State Council for Science, Innovation and Technology (HSCSIT), organized by the Department of Mathematics, J. C. Bose University of Science and Technology, YMCA, Faridabad, India, on December 22, 2020.
- Served as Coordinator for the “Two-Week Workshop on Scientific Computing Using MATLAB & Python (SCMP–2020),” sponsored by TEQIP-III and jointly organized by the Department of Mathematics and the Department of Computer Engineering, J. C. Bose University of Science and Technology, YMCA, Faridabad, India, during September 7–18, 2020.
- Served as Convener for the “NCM Teachers Enrichment Workshop,” jointly organized by the National Centre for Mathematics (NCM), IIT Bombay, and TIFR Mumbai, and sponsored by NBHM, held at the Department of Mathematics, DAV University, Jalandhar, India, during May 28–June 2, 2018.
- Served as a member of the Organizing Committee for the “Science Academies’ Lecture Workshop on Algebra and Number Theory,” sponsored by IASc, INSA, and NASc, held at the Department of Mathematics, DAV University, Jalandhar, India, during September 8–9, 2017.

**Paper Pre-
sentations**

- Presented the paper titled “Elastic Waves at the Interface of Porous and Viscoelastic Media with Voids” in the 30th International Conference on *Recent Advances in Science & Technology towards Sustainability (RASTS–2024)*, organized under CONIAPS XXX and held at J. C. Bose University of Science and Technology, YMCA, Faridabad, Haryana, India, during February 28–29, 2024.
- Presented the paper titled “Plane Waves in an Elastic Solid under Non-Uniform Rotary Motion” in the International Conference on *Applied Mathematics and Mechanics (ICAMM–2023)*, held at IIT Indore, Madhya Pradesh, India, during October 18–20, 2023.
- Presented the paper titled “Reflection and Refraction of Homogeneous Waves at a Plane Interface Between Swelling Porous and Viscoelastic Half-Spaces with Voids” in the National Seminar on *Recent Advances in Mathematical Research*, held at Rajiv Gandhi Government College, Saha, Ambala, India, on February 11, 2017.

- Presented the paper titled “Dilatational Waves at the Interface of Elastic and Porous Half-Spaces” in the International Conference on *Emerging Trends in Computational and Applied Mathematics*, held at ITM University, Gurugram, India, during June 2–4, 2014.
- Presented the paper titled “Rayleigh Waves in Swelling Porous Medium” in the International Conference *Acoustics 2013 New Delhi*, jointly organized by CSIR–National Physical Laboratory (NPL), the Acoustical Society of India (ASI), and the French Acoustical Society (SFA), held at NPL, New Delhi, India, during November 10–15, 2013.
- Presented the paper titled “Rayleigh Waves in Swelling Porous Half-Space” in the 7th *Chandigarh Science Congress (CHASCON–2013)*, held at Panjab University, Chandigarh, India, during March 1–3, 2013.
- Presented the paper titled “Elastic Wave Propagation in Swelling Porous Medium” in the *Symposium in Mathematics*, held at Panjab University, Chandigarh, India, during February 7–8, 2012.
- Presented the paper titled “Propagation of Waves in Saturated Porous Medium Containing Two Immiscible Fluids” in the National Conference on *Mathematical Sciences*, held at Pachhunga University College, Mizoram University, Aizawl, India, during November 24–25, 2011.

Previous Educational Details

- **Ph.D.** (Mathematical Sciences). Completed in October 24, 2016 from Department of Mathematics, Panjab University, Chandigarh, India.
Thesis Title: Elastic waves in swelling porous medium containing two immiscible fluids.
Supervisor: Prof. S. K. Tomar, FNASc, Department of Mathematics, Panjab University, Chandigarh, India.
- **M.Sc. (Hons. School)** - Mathematics.
Passed in July, 2010 with 74.3% marks from Department of Mathematics, Panjab University, Chandigarh, India.
- **B.Ed.** - Science, Mathematics.
Passed in July, 2008 with 73.1% marks (Panjab University, Chandigarh) from Government College of Education, Chandigarh, India.
- **B.Sc. (Non Medical)**- Physics, Chemistry, Mathematics.
Passed in June, 2007 with 72.77% marks (Punjabi University, Patiala) from Government College, Malerkotla, Punjab, India.
- **Higher Secondary**
Passed in April, 2004 with 82% marks (P.S.E.B.) from Government College, Malerkotla, Punjab, India.
- **High School**
Passed in April, 2002 with 88.15% marks (P.S.E.B.) from S.D.P.P. High School, Malerkotla, Punjab, India.

Computer Skills

- Software's: MATLAB, MATHEMATICA, LATEX, M.S. OFFICE
- Languages: C, FORTRAN 77

Languages known

- English, Hindi, Punjabi

Extra Curricular Activities

- Acting as Faculty Co-coordinator in Vivekanand Manch Club at University level since September 2020.
- Acted as N.S.S. volunteer and Group Leader during Graduation.
- Acted as the president of Science-Society during graduation.
- Participated in a number of state level declamation competitions during school days.

References

1. Prof. S.K. Tomar, FNASc
Professor, Department of Mathematics, Panjab University, Chandigarh, India
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2. Prof. Subash Chandra Martha
Professor, Department of Mathematics, Indian Institute of Technology Ropar, Rupnagar, Punjab, India
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Professor, Department of Mathematics, I.K.G. Punjab Technical University, Jalandhar, Punjab, India
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