



## Dr. Suraj Goyal

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<b>Personal Details</b>	Date of Birth : December 18, 1987 Sex : Male Citizenship : Indian Marital Status : Married Residence Address: Flat-504, Kanchanjanga Apartments, J.C. BOSE University of Science and Technology, YMCA, Sector-6, Faridabad - 121006, Haryana, INDIA	
<b>Academic Positions</b>	<i>Feb 2020–till date</i> <b>Assistant Professor</b> , J.C. BOSE University of Science and Technology, YMCA, Faridabad. <i>Aug 2014–Jan 2020</i> <b>Assistant Professor</b> , DAV University, Jalandhar.	
<b>Academic Bodies Membership</b>	<ul style="list-style-type: none"><li>• Member (Membership No.: GYSRXB) and Reviewer (MathSciNet Reviewer Number: 139733) of AMS (American Mathematical Society) since 2018.</li><li>• Lifetime member (Membership No.: L/2019/39) of IMS (Indian Mathematical Society).</li><li>• Lifetime member (Membership No.: L41295) of ISCA (Indian Science Congress Association).</li></ul>	
<b>Research Interests</b>	Continuum Mechanics- Primarily interested in solving various elastic wave propagation related problems in classical as well as non classical theories of elasticity.	
<b>Research Projects</b>	Working as Co-PI (Co-coordinator) of the DST Promotion of University Research And Scientific Excellence (PURSE) 2022 Program worth Rs. 7.0 Crores at the J. C. Bose University of Science & Technology, YMCA, Faridabad (2023-2026).	

<b>Students</b>	02 PhD Students (ongoing).
<b>Guided</b>	19 PG Dissertation Students (awarded).
<b>Published in Journals</b>	<ol style="list-style-type: none"> <li>1. <b>Suraj Goyal</b>, 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: <a href="https://doi.org/10.1080/15376494.2021.1939204">https://doi.org/10.1080/15376494.2021.1939204</a>. Publisher- <b>Taylor &amp; Francis</b>, Country- <b>United Kingdom (Europe)</b>, Quartile- <b>Q1</b></li> <li>2. <b>Suraj Goyal</b>, 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: <a href="https://doi.org/10.1016/j.ijmecsci.2020.105942">https://doi.org/10.1016/j.ijmecsci.2020.105942</a>. Publisher- <b>Elsevier</b>, Country- <b>United Kingdom (Europe)</b>, Quartile- <b>Q1</b></li> <li>3. <b>Suraj Goyal</b>, 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: <a href="https://doi.org/10.1007/s11242-016-0681-3">https://doi.org/10.1007/s11242-016-0681-3</a>. Publisher- <b>Springer</b>, Country- <b>Netherlands (Europe)</b>, Quartile- <b>Q1</b></li> <li>4. <b>Suraj Goyal</b> 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: <a href="https://doi.org/10.1007/s11242-015-0539-0">https://doi.org/10.1007/s11242-015-0539-0</a>. Publisher- <b>Springer</b>, Country- <b>Netherlands (Europe)</b>, Quartile- <b>Q1</b></li> <li>5. <b>Suraj Goyal</b> and S.K. Tomar (2015). Reflection and Transmission of Inhomogeneous Waves at the Plane Interface between two Dissimilar Swelling Porous Half-Spaces. <i>Special Topics &amp; Reviews in Porous Media: An International Journal</i>, 6(1), 51–69. DOI: <a href="https://doi.org/10.1615/SpecialTopicsRevPorousMedia.v6.i1.50">https://doi.org/10.1615/SpecialTopicsRevPorousMedia.v6.i1.50</a>. Publisher- <b>Begel House Inc.</b>, Country- <b>Connecticut (USA)</b>, Quartile- <b>Q2</b></li> <li>6. S.K. Tomar and <b>Suraj Goyal</b> (2013). Elastic waves in swelling porous media. <i>Transport in porous media</i>, 100(1), 39–68. DOI: <a href="https://doi.org/10.1007/s11242-013-0204-4">https://doi.org/10.1007/s11242-013-0204-4</a>. Publisher- <b>Springer</b>, Country- <b>Netherlands (Europe)</b>, Quartile- <b>Q1</b></li> </ol>
<b>In the Proceedings of Conferences</b>	<ol style="list-style-type: none"> <li>1. <b>Suraj Goyal</b> and S.K. Tomar (2013). Rayleigh waves in a swelling porous half-space, <i>ACOUSTICS 2013 NEW DELHI</i>, pp. 829–834, November 10–15, 2013, New Delhi, India.</li> </ol>
<b>Accepted/Communicated/Under Preparation</b>	<ol style="list-style-type: none"> <li>1. <b>Suraj Goyal</b> (2022). Plane waves in a rotating elastic material under uniform acceleration. (Under Communication).</li> <li>2. Aakash Kumar and <b>Suraj Goyal</b> (2023). Plane dilatational and shear waves in a chiral thermoelastic medium with voids under strain gradient theory. (Under Preparation).</li> </ol>

3. **Suraj Goyal** (2023). Love-type surface waves in a swelling porous half-space. (Under Preparation)

**Books Edited/Published** Edited the book: *Tom M. Apostol, Calculus: An Indian Adaptation, Volume 1, Second Edition, Wiley India Pvt. Ltd., 2023 (ISBN: 978-93-5464-263-0)*. in collaboration with Dr Jitender Singh.

- 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**
1. Delivered four lectures in the two-day seminar on *L<sup>A</sup>T<sub>E</sub>X Software System* organized by Research & Development Cell, J. C. Bose University of Science and Technology, YMCA, Faridabad during February 8–9, 2023.
  2. Delivered four lectures in the *Workshop on L<sup>A</sup>T<sub>E</sub>X* jointly organized by Pt. Deen Dayal Upadhyay Central Library and Research & Development Section, J. C. Bose University of Science and Technology, YMCA, Faridabad on May 12, 2022.
  3. Delivered a lecture on *Solving Linear System and Eigen-Values using MATLAB* in the AICTE-QIP sponsored online short-term course on *Implementation of Numerical Methods using MATLAB* organized by Department of Mathematics, IIT Indore during January 3–8, 2022.
  4. Delivered a lecture on *Introduction to Beamer* in the workshop *National Workshop on MATLAB and LATEX (NWML)* organized by Department of Mathematics, Akal University, Talwandi Sabo, Bathinda during April 9–11, 2021.
  5. Delivered a lecture on *MATLAB for Beginners* in workshop *Soft Skills in Mathematics* organized by Department of Mathematics, Hans Raj Mahila Maha Vidyalya, Jalandhar on December 4, 2020.

- Workshop/Conferences Organized**
- Acted as coordinator in “A Two-Day Workshop on Applications of Mathematics,” sponsored by Haryana State Council of Science Innovation and Technology (HSC-SIT); organized by Department of Mathematics, J C Bose University of Science & Technology, YMCA, Faridabad (India), August 9-10, 2021.

- Acted as organizing secretary in “Expert Talks on the Legacy of Srinivasa Ramanujan,” sponsored by Haryana State Council of Science Innovation and Technology (HSCSIT); organized by Department of Mathematics, J C Bose University of Science & Technology, YMCA, Faridabad (India), December 22, 2020.
- Acted as coordinator in “A Two Week Workshop on Scientific Computing Using MATLAB & PYTHON (SCMP-2020),” sponsored by *TEQIP-3*; jointly organized by Department of Mathematics & Department of Computer Engineering, J C Bose University of Science & Technology, YMCA, Faridabad (India), Sept. 07-18, 2020.
- Acted as coordinator in the webinar on “Applications of Mathematics in Science & Technology,” organized by Department of Mathematics, J C Bose University of Science & Technology, YMCA, Faridabad (India), June 09, 2020.
- Acted as convener in “NCM Teachers Enrichment Workshop,” A joint Centre of IIT Bombay and TIFR, Mumbai sponsored by NBHM held at Department of Mathematics, DAV University, Jalandhar (India), May 28 to June 02, 2018.
- Acted as one of the organizing members of Organizing Committee for “Science Academies’ Lecture Workshop On Algebra And Number Theory,” sponsored by IASc, INSA, NASc held at Department of Mathematics, DAV University, Jalandhar (India), September 08-09, 2017.

**Conferences  
Attended**

- “14<sup>th</sup> Chandigarh Science Congress (Chascon-2020),” held at Panjab University, Chandigarh (India), December 17-19, 2020.
- Attended webinar on “Mathematical Modeling of Infectious Diseases: Its relevance in Time of Covid” and “Binary Recurrence Sequences and Its Arithmetic,” organized by Department of Mathematics and Computer Science, Mizoram University, Aizawl (India), June 11, 2020.
- “Recent Advances in Mathematical Research,” held at Rajiv Gandhi Govt. College, Saha, Ambala (India), February 11, 2017.  
**Presented** a paper entitled “Reflection and refraction of homogeneous waves at a plane interface between swelling porous and viscoelastic with voids half spaces.”
- International Conference on “Emerging Trends in Computational and Applied Mathematics,” held at ITM University, Gurgaon (India), June 2-4, 2014.  
**Presented** a paper entitled “Dilatational wave at the interface of elastic/porous half-spaces.”
- International Conference “Acoustics 2013 New Delhi,” organized by CSIR-National Physical Laboratory (NPL), Acoustical Society of India (ASI) and the French Acoustical Society (SFA), held at NPL, New Delhi (India), November 10-15, 2013.  
**Presented** a paper entitled “Rayleigh waves in swelling porous medium.”
- “7<sup>th</sup> Chandigarh Science Congress (Chascon-2013),” held at Panjab University, Chandigarh (India), March 1-3, 2013.  
**Presented** a paper entitled “Rayleigh waves in swelling porous half-space.”
- Attended colloquium in “Mathematics in the thrust areas of algebra, number theory and applied Mathematics,” held at Department of Mathematics, Panjab University, Chandigarh (India), February 22-23, 2013.

- “Symposium in Mathematics,” held at Department of Mathematics, Panjab University, Chandigarh (India), February 7-8, 2012.  
**Presented** a paper entitled “Elastic wave propagation in swelling porous medium.”
- “A National Conference on Mathematical Sciences,” held at Pachhunga University College, Mizoram University, Aizwal (India), November 24-25, 2011.  
**Presented** a paper entitled “Propagation of waves in saturated porous medium containing two immiscible fluids.”

**Training  
Programs/  
Workshops  
Participated**

- Participated in the “One Week Faculty Development Program (Online),” organized by Internal Quality Assurance Cell, Aggarwal College Ballabgarh (Affiliated to MDU, Rohtak), July 07-14, 2021.
- Participated in the “One Week Professional Development Program,” sponsored and organized by J. C. Bose University of Science & Technology, YMCA, Faridabad (India), June 28–July 03, 2021.
- Participated in the “Online Interdisciplinary Refresher Course on Changing Perspectives in Pedagogy,” conducted under PMMMNMTT Scheme of Ministry of Education, Govt of India; organized by Teaching Learning Center, Tezpur University, Tezpur (India), October 08-22, 2020.
- Participated in the “AICTE recognized Faculty Development Programme on Choice Based Credit System,” conducted by Curriculum Development Center, NITTTR Chandigarh, MHRD, Govt of India; organized at J. C. Bose University of Science & Technology, YMCA, Faridabad (India), March 11-13, 2020.
- Participated in the “NCM Workshop on Continuum Mechanics: Principles and Applications,” held at Department of Mathematics, Panjab University, Chandigarh (India), November 19-24, 2018.
- Participated in the “115<sup>th</sup> General Orientation Programme,” held at UGC-Human Resource Development Center, Panjab University, Chandigarh (India), June 28 to July 25, 2017.
- Participated in the “ATMW Conservation laws with applications to continuum mechanics,” held at Department of Mathematics, Panjab University, Chandigarh (India), December 2-7, 2014.
- Participated in the “NCM Instructional School for lecturers (ISL) in Numerical Analysis,” held at Department of Mathematics, Panjab University, Chandigarh (India), June 9-28, 2014.
- Attended workshop in “Mathematical modeling and computational techniques,” sponsored by TEQIP and organized by University Institute of Engineering and Technology, Chandigarh (India), September 27-28, 2013.
- Participated in “Workshop on parallel computing using HPCC,” organized by Department of Physics, Panjab University, Chandigarh (India), March 21-22, 2013.
- Attended and **conducted tutorial sessions** in “Advanced Instructional School (AIS) in Numerical Analysis,” sponsored by NBHM, held at Department of Mathematics, Panjab University, Chandigarh (India), June 18 to July 7, 2012.

- Attended and **conducted tutorial sessions** in “7th Annual Foundation School-II (AFS-II),” sponsored by NBHM, held at Department of Mathematics, Panjab University, Chandigarh (India), June 2-29, 2011.
- Attended the summer school “Mathematics Training and Talent Search (MTTS) Programme Level-1,” sponsored by NBHM, held at held at UICT, Mumbai (India), May 14 to June 6, 2007 during B.Sc.

**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 Secretary, JCBUST Staff Club at University level since April 2022.
- 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  
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