

## FACULTY PROFILE PROFORMA

|                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                        |            |                                         |           |                        |                                                                                     |
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| Title                                                                                                                                                                                                                                                                                                                                                                                      | Dr.                                                                                                    | First Name | Rajni                                   | Last Name | Kanwar                 | Photograph                                                                          |
| Designation                                                                                                                                                                                                                                                                                                                                                                                | Assistant Professor                                                                                    |            |                                         |           |                        |  |
| Department                                                                                                                                                                                                                                                                                                                                                                                 | Mathematics                                                                                            |            |                                         |           |                        |                                                                                     |
| Address (Official)                                                                                                                                                                                                                                                                                                                                                                         | Department of Mathematics<br>Kalindi College East Patel Nagar,<br>Patel Nagar, New Delhi, Delhi-110008 |            |                                         |           |                        |                                                                                     |
| Phone No.                                                                                                                                                                                                                                                                                                                                                                                  | +917607401426                                                                                          |            |                                         |           |                        |                                                                                     |
| Email/ Research Contact                                                                                                                                                                                                                                                                                                                                                                    | rajnikanwar@kalindi.du.ac.in                                                                           |            |                                         |           |                        |                                                                                     |
| <b>Education</b>                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Course</b>                                                                                                                                                                                                                                                                                                                                                                              | <b>Institution</b>                                                                                     |            |                                         |           |                        | <b>Year</b>                                                                         |
| Ph.D.                                                                                                                                                                                                                                                                                                                                                                                      | Himachal Pradesh University, Shimla                                                                    |            |                                         |           |                        | 2016                                                                                |
| M.Phil.                                                                                                                                                                                                                                                                                                                                                                                    | Himachal Pradesh University, Shimla                                                                    |            |                                         |           |                        | 2010                                                                                |
| Post Graduation                                                                                                                                                                                                                                                                                                                                                                            | Himachal Pradesh University, Shimla                                                                    |            |                                         |           |                        | 2009                                                                                |
| Graduation                                                                                                                                                                                                                                                                                                                                                                                 | Himachal Pradesh University, Shimla                                                                    |            |                                         |           |                        | 2006                                                                                |
| <b>Career Profile</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Organisation/Institution</b>                                                                                                                                                                                                                                                                                                                                                            | <b>Designation</b>                                                                                     |            | <b>Dates Employed</b>                   |           | <b>Role</b>            |                                                                                     |
| Presidency University, Bangalore                                                                                                                                                                                                                                                                                                                                                           | Assistant Professor                                                                                    |            | July 2019- July 2022                    |           | B.Tech. Teaching       |                                                                                     |
| The World Grad                                                                                                                                                                                                                                                                                                                                                                             | SME                                                                                                    |            | September 2022- Feb 2024                |           | Subject Matter Expert  |                                                                                     |
| Kalindi College                                                                                                                                                                                                                                                                                                                                                                            | Assistant Professor                                                                                    |            | Feb 2024 - Present                      |           | Undergraduate Teaching |                                                                                     |
| <b>Research Interests/Specialization</b>                                                                                                                                                                                                                                                                                                                                                   |                                                                                                        |            |                                         |           |                        |                                                                                     |
| Group Theory, Brauer Algebra, Signed Brauer Algebra, Group action, Patial Group Action                                                                                                                                                                                                                                                                                                     |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Administrative Assignments / Contribution to corporate life</b>                                                                                                                                                                                                                                                                                                                         |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <ul style="list-style-type: none"> <li>Co Convenor (Proctorial Board)</li> <li>Member ( Kavya Shristi)</li> </ul>                                                                                                                                                                                                                                                                          |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Teaching Experiences (Subject/Courses taught)</b>                                                                                                                                                                                                                                                                                                                                       |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <ul style="list-style-type: none"> <li>➤ <b>B.Sc.(H) Mathematics (Paper description):</b> Mechanics, Vedic Mathematics I, II, III, IV, Discrete Mathematics</li> <li>➤ <b>B.A. Prog. (Paper description):</b> Differential Equations, Graph Theory, Combinatorics, Elements of Discrete Mathematics</li> <li>➤ <b>B.Sc. Physical Science (Paper description):</b> Combinatorics</li> </ul> |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Research Guidance</b>                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Publication (Peer Reviewed/Indexed Journals)</b>                                                                                                                                                                                                                                                                                                                                        |                                                                                                        |            |                                         |           |                        |                                                                                     |
| <b>Year of Publication</b>                                                                                                                                                                                                                                                                                                                                                                 | <b>Title</b>                                                                                           |            | <b>Name of Journal</b>                  |           |                        |                                                                                     |
| 2019                                                                                                                                                                                                                                                                                                                                                                                       | Some Subgroups of symmetric groups determined using Signed Brauer diagram                              |            | Journal of Algebra and its Applications |           |                        |                                                                                     |
| 2016                                                                                                                                                                                                                                                                                                                                                                                       | "Labelling of sets under the actions of $S_n$ arrow and arrow                                          |            | Algebra and its Applications            |           |                        |                                                                                     |

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|-------------|---------------------------------------------|-----------------------------------------------------------------|--|
| <b>2016</b> | <i>Partial Actions on Graphs</i>            | <b>International Journal Of Technology</b>                      |  |
| <b>2015</b> | Distinguishing Labelling of Partial Actions | <b>International Journal of Algebra</b>                         |  |
| <b>2013</b> | Partial Skew Group Semi rings               | <b>Journal of Combinatorics, Information and system Science</b> |  |

#### **Seminar/Workshop/Conferences Presentation/Organization**

- Participated in level 'O' of Mathematics Training and Talent Search Programme (funded by NBHM) Punjab University, Chandigarh, May 30- June 25, 2005.
- Presented paper in 21st International Conference of Forum for Interdisciplinary Mathematics (FIM) on "Interdisciplinary Mathematic, Statistics and Computational Techniques" held at the dept. of Statistics, Punjab University, from 15<sup>th</sup> to 17<sup>th</sup> Dec. 2012.
- Participated in National Conference on Recent Advances in Continuum Mechanics, held at the Dept. of Mathematics and Statistics, Himachal Pradesh University, Shimla on 29<sup>th</sup> and 30<sup>th</sup> March 2013.
- Participated in Advanced Instructional School (AIS) on "Diophantine Equations" organized at the Dept. of Mathematics and Statistics, Himachal Pradesh University, Shimla from 16<sup>th</sup> June to 4<sup>th</sup> July 2014.
- Presented Research Paper titled "Partial Group Actions on Graphs" in International Conference in Algebra and Allied Fields organized under UGC SAP at the Dept. of Mathematics and Statistics, Himachal Pradesh University, Shimla on 26<sup>th</sup> March and 27<sup>th</sup> July 2014.
- Presented Research Paper titled "Structure Theorem for Partial (G,  $\alpha$ )-sets" in National Seminar on Algebra and its Applications organized under UGC SAP at the Dept. of Mathematics and Statistics, Himachal Pradesh University, Shimla on 26<sup>th</sup> March 2016.
- Participated in Two Days National Workshop on "Hands on Computing with MATLAB", organized by Department of Mathematics, School Of Engineering, Presidency University, Bengaluru, held during 2<sup>nd</sup> & 3<sup>rd</sup> January 2020.
- Presented Paper entitled "Wreath Product and Conjugacy Classes" in International Conference on Mathematics and its Applications (ICAM-2020), organized by Dept. of Mathematics, Bangalore University, Jnanabharthi Campus, Bengaluru held on 28-29 Feb 2020.
- Acted as Key Resource person in the following online National level webinars:
- Online national level Webinar on „Group Theory and its Applications" organized by the Government First Grade College, Kolar (25/07/2020)
- Online national level Webinar on "Basic Algebra and its Applications" organized by the N.E.S. Govt. aided College Bangalore (07/07/2020)
- Presented Paper entitled "Conjugacy Classes of Wreath Product" 2<sup>nd</sup> INTERNATIONAL CONFERENCE ON RECENT TRENDS IN MATHEMATICS (ICRTM) organised by Hans Raj College, Delhi University, February 7-8, 2025.
- Session Chaired in 3<sup>rd</sup> International conference on Recent Trends in Mathematical Science (ICRTMS-2025) organised by HPU Shimla (10-11 May 2025)

#### **• Faculty Development Programme**

- Participated in Faculty Development Programme on "Enlightening Math for Future Techie" organized by Department of Mathematics, School Of Engineering, Presidency University, Bengaluru, held on 25<sup>th</sup> January 2020.
- 4 week faculty induction/orientation programme for „Faculty in Universities/ Colleges/Institute of Higher Education" from 21 February- 19 March, 2024.
- Participated in Faculty Development Programme NEP 2020 Orientation & Sensitization Programme Under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grant Commission Organised by Centre for Professional Development in Higher Education (UG- MMTTC), University of Delhi from 8<sup>th</sup> Oct. 2024 to 17<sup>th</sup> October 2024.

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| <ul style="list-style-type: none"> <li>• <b>Awards &amp; Distinctions</b></li> </ul>                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"> <li>• <b>UGC-BSR (JRF, SRF)</b> holder (2011-2015)</li> <li>• <b>Gold Medalist</b> in Post-Graduation from Himachal Pradesh University.</li> <li>• <b>3<sup>rd</sup> rank</b> in Graduation at state level (Himachal Pradesh University).</li> <li>• <b>Merit holder</b> in higher secondary school State Board.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Professional Societies Memberships</b></li> </ul>                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• <i>Lifetime membership of Himachal Mathematical Society.</i></li> <li>• <i>Lifetime membership of Himachal Ganit Parishad.</i></li> </ul>                                                                                                                                                                             |

