



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

(Phone No. - 011-7121 9084 : Email - principal@kmc.du.ac.in)



Print Date : 15-02-2026

## 1. Personal Profile

Title: Dr. First Name: **KAJAL** Last Name: **JINDAL**



Designation: **ASSISTANT PROFESSOR** Mobile No. -----

Phone No. (Office) ----- Phone No. (Residence): -----

Email: **kajalmh18@kmc.du.ac.in** Webpage: -----

Facebook: ----- Twitter: -----

LinkedIn: ----- Instagram: -----

Youtube: ----- Research Gate Link: -----

Google Scholar Link: <https://scholar.google.com/citations?user=yQ8tcOoAAAAJ&hl=en>

Address: -----

## 2. Educational Qualifications

Degree/ Certification	Institution	Year
Ph.D. Physics	Department of Physics and Astrophysics, University of Delhi	2015

## 3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
CAREER PROFILE	ASSISTANT PROFESSOR	PHYSICS Kirori Mal College, University of Delhi	25.Sep.2013 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	IQAC Kirori Mal College, University of Delhi	01.Jul.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CAREER DEVELOPMENT CELL Kirori Mal College, University of Delhi	13.Jun.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	RESEARCH COUNCIL KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - Till date	

ADMINISTRATIVE ASSIGNMENTS	MEMBER	HEFA COMMITTEE Kirori Mal College, University of Delhi	07.Feb.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	MASTER PLAN FOR INFRASTRUCTURE PROJECTS Kirori Mal College, University of Delhi	18.Jan.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	FOREIGN LANGUAGE COURSES COMMITTEE Kirori Mal College, University of Delhi	05.Jan.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	COORDINATING COMMITTEE FOR INFORMATION AND TECHNOLOGY KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	SYLLABUS FORMATION COMMITTEE KIRORI MAL COLLEGE, DELHI	01.Mar.2023 - 01.Apr.2023	Member, committee for formation of syllabus of Electronics papers in B.Sc.(H) Physics and B.Sc. (Prog.) courses under NEP
ADMINISTRATIVE ASSIGNMENTS	MEMBER	STUDENT UNION ACTIVITIES COMMITTEE KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	AUDIO-VISUAL FACILITIES AND EQUIPMENT MAINTENANCE COMMITTEE KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - 30.Jun.2024	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PARIVARTAN-THE GENDER FORUM KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - 30.Jun.2024	
ADMINISTRATIVE ASSIGNMENTS	NODAL OFFICER	VIKSIT BHARAT Kirori Mal College, University of Delhi	03.Jan.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ORGAN DONATION Kirori Mal College, University of Delhi	19.Apr.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	ROBOTICS KIRORI MAL COLLEGE, DELHI	01.Jul.2022 - 30.Apr.2024	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	ROVER CLUB Kirori Mal College, University of Delhi	17.Oct.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	G20 COMMITTEE KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - Till date	

#### 4. Other Profiles

Other Profile Name/ Description

## PATENTS

1. Photoelectrochemical water splitting based biosensor for detecting uric acid in the biological fluids, Pradip K. Jha, Monika Tomar, **Kajal Jindal**, Chanchal (Indian Patent Application No.: 202311040935, Publication date: 21/7/2023).
2. "A Gallium Nitride (GaN) Based Junctionless Transistor For Sensing Uric Acid", Monika Tomar, **Kajal Jindal**, Gunjan Yadav. Application no. 202311037845, dated 01-06-2023.
3. "Development of self-powered  $\text{HfO}_2$  thin film based low cost solar blind deep UV photodetector", Monika Tomar, Arijit Chowdhuri, **Kajal Jindal**, Gunjan Yadav. (Indian patent office, Indian Patent Application no.: 202311010975, dated: 17-02-2023).

## CONTRIBUTION TOWARDS DEVELOPMENT OF E-CONTENTS/ MOOCS

Content writer for preparation of e-content of paper "Measurement and Instrumentation" and "Thin film science and technology" for post-graduate students on material science under the UGC project "**e-PG Pathshala**" (an MHRD Project under its National Mission on Education through ICT).

## FACULTY DEVELOPMENT PROGRAM (FDP) ORGANIZED

€€**Co-Cordinator** in the conduct of 5-day Online Faculty Development Program (FDP) on "**PROGRAMMING IN PYTHON**" organized by the **Kirori Mal College, University of Delhi** in collaboration with **Mizoram University** under the aegis of **PANDIT MADAN MOHAN MALVIYA NATIONAL MISSION ON TEACHERS AND TRAINING (PMMMNMTT), MINISTRY OF EDUCATION**, during **6<sup>th</sup> - 10<sup>th</sup> December, 2021**.

## AREAS OF INTEREST/ SPECIALIZATION

Material Science

## WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED

€ €Member of the organizing committee in the conduct of "**Two Week Hands-on Training Workshop on Semiconductor Devices Fabrication from 20 March– 03 April 2023**" organized by **Miranda House** in association with **Center for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School of Skill Enhancement and Entrepreneurship Development (DSSEED)**.

## WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED

€ €**Coordinator** in the conduct of "**2-day Hands-on Workshop on Arduino Programming**" organized by the **KMC Physics Robotics Club, Department of Physics, Kirori Mal College, University of Delhi** during **24<sup>th</sup> - 25<sup>th</sup> March, 2023**.

#### WORKSHOP/ SEMINAR/ CONFERENCE/ WEBINAR ORGANIZED

Member of organizing team “**6<sup>th</sup> International Symposium on Integrated Functionalities (ISIF 2017)**”, held at Shangri-La Eros’ Hotel, Delhi, India from 10<sup>th</sup> -13<sup>th</sup> December, 2017.

#### AWARDS AND DISTINCTIONS

**Best presentation award:** Two-day international conference on Nanomedicine: Biomolecules For Human Health, Kirori Mal College from 27-28 September 2021.

#### AWARDS AND DISTINCTIONS

**Best Presentation award:** “Influence of magnetic ordering on the electronic, optical and magnetic properties of  $\text{Bi}_2\text{Fe}_4\text{O}_9$ ”, Kajal Jindal, Shaan Ameer, Monika Tomar, Pradip K. Jha, Vinay Gupta, presented at Recent Advances in Functional Materials (RAFM-2020) held at Atma Ram Sanatan Dharma College, University of Delhi, India from 5th – 6th November 2020.

#### AWARDS AND DISTINCTIONS

**MRSI Prize for the best paper presentation by Material Research Society of India in 2012.**

#### AWARDS AND DISTINCTIONS

Ø Received **KMC Research Excellence Award on KMC Founder's Day on 1<sup>st</sup> February 2025** for outstanding contribution to research in AY 2023 and 2024.

### 5. Research Guidance

Year	Guide For	Title of the Dissertation/ Thesis	Scholar Name	Status
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### 6. Research Projects

Year	Title of Project	Sponsorship Agency	Duration	Amount Sanctioned	Date of Sanction
2023	Bioassay Development: For the Field Diagnosis of Thrombosis	Defence Institute of Physiology and Applied Sciences (DIPAS), DRDO	01 year 06 months	27.42 Lakhs	10.Oct.2023
2023	Embedding ferroelectric hafnium-zirconium oxide (HZO) in gate stack of GaN based junctionless transistor	DST-SERB	03 years	31.93 lakhs	16.Mar.2024
2025	Development of MxOy thin film layers for UV-A, B and C sensing utilizing Surface acoustic Waves	DRDO	30 months	181.44 Lakhs	18.Mar.2025

### 7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/DOI Link	Publication (Month-Year)
JOURNAL PAPER (International)	Conductive polymer based MWCNTs Nanocomposite as Electrochemical Sensing Platform to detect Chloramphenicol	Synthetic Metals	Amit Lochab, Kajal Jindal, Arijit Chowdhuri, Monika Tomar, Reena Saxena (Joint Author)	<a href="https://doi.org/10.1016/j.synthmet.2023.117397">https://doi.org/10.1016/j.synthmet.2023.117397</a>	June 2023
JOURNAL PAPER (International)	Lamb Wave Resonator For UV Photodetection and Impact Of Induced Piezo-potential On Schottky Barrier Height Towards Enhanced Sensitivity	IEEE Sensors	Manisha Bharati, Lokesh Rana, Kajal Jindal, Reema Gupta, Anjali Sharma, Monika Tomar (Joint Author)	DOI:10.1109/JSEN.2023.3265854	May 2023
JOURNAL PAPER (International)	Fabrication of GaN-based MSM droplet triboelectric nanogenerator by the conjunction of Photovoltaic and Triboelectric effect	Journal of Alloys and Compounds	Gunjan Yadav, Kajal Jindal, Monika Tomar (Joint Author)	<a href="https://doi.org/10.1016/j.jallcom.2023.169178">https://doi.org/10.1016/j.jallcom.2023.169178</a>	May 2023
JOURNAL PAPER (International)	Determination of Chromium in Contaminated Water Samples Using Chemically Modified Nanoadsorbent: A Computational and Experimental Study	ChemistrySelect	Dr. Shelja Tiwari, Amit Lochab, Dr. Kajal Jindal, Prof. Reena Saxena (Joint Author)	<a href="https://doi.org/10.1002/slct.202203316">https://doi.org/10.1002/slct.202203316</a>	February 2023
JOURNAL PAPER (International)	Theoretical insight of origin of Rashba–Dresselhaus effect in tetragonal and rhombohedral phases of BiFeO <sub>3</sub>	Phys. Chem. Chem. Phys.	Tahir Ahmad, Kajal Jindal, Monika Tomar, Pradip K. Jha (Joint Author)	<a href="https://doi.org/10.1039/D2CP04852C">https://doi.org/10.1039/D2CP04852C</a>	January 2023
JOURNAL PAPER (International)	Infuence of pulsed laser deposited hafnium oxide thin film as gate dielectric on the fabrication of Al <sub>0.1</sub> Ga <sub>0.9</sub> N/GaN MOS-HEMT	Materials Science in Semiconductor Processing	Gunjan Yadav, Kajal Jindal, Monika Tomar (Joint Author)	<a href="https://doi.org/10.1016/j.mssp.2022.107136">https://doi.org/10.1016/j.mssp.2022.107136</a>	January 2023

JOURNAL PAPER (International)	Influence of post deposition annealing on thermoelectric properties of In <sub>2</sub> Se <sub>3</sub> thin films	Materials Science in Semiconductor Processing	Chanchal, Monika Tomar, Kajal Jindal, Anjali Sharma, Pradip K. Jha (Joint Author)	<a href="https://doi.org/10.1016/j.mssp.2022.107127">https://doi.org/10.1016/j.mssp.2022.107127</a>	January 2023
JOURNAL PAPER (International)	Microfluidics Integrated NiO based Electrolyte-Gated FET for detection of Cortisol	Journal of Materials Chemistry B	Nidhi Dhull, Gurpreet Kaur, Kajal Jindal, Mallika Verma, Monika Tomar (Joint Author)	<a href="https://doi.org/10.1039/D2TB01652D">https://doi.org/10.1039/D2TB01652D</a>	October 2022
JOURNAL PAPER (International)	Role of coordination site in governing the structural, electronic and optical properties of Ca-doped strontium barium niobate	Physica Scripta	Tahir Ahmad, Monika Tomar, Kajal Jindal, Pradip K. Jha (Corresponding Author)	10.1088/1402-4896/ac8900	August 2022
JOURNAL PAPER (International)	Role of vacancies in tuning the electronic and magnetic properties of BiCoO <sub>3</sub>	Physica Scripta	Manisha Kumari, Kajal Jindal, Monika Tomar, Pradip K. Jha (Joint Author)	10.1088/1402-4896/ac7912	June 2022
JOURNAL PAPER (International)	Effect of 3d transition metal doping on the structural, electronic, & magnetic properties of BiCoO <sub>3</sub> using first principles study	Journal of magnetism and magnetic materials	Manisha Kumari, Kajal Jindal*, Monika Tomar, Pradip K. Jha (Corresponding Author)	<a href="https://doi.org/10.1016/j.jmmm.2023.171383">https://doi.org/10.1016/j.jmmm.2023.171383</a>	October 2023
JOURNAL PAPER (International)	Effect of codoping of rare earth elements and Cr on multiferroic, optical and photocatalytic properties of BiFeO <sub>3</sub>	Materials Today Communications/ Elsevier	Tahir Ahmad, Kajal Jindal, Monika Tomar, P.K. Jha (Joint Author)	<a href="https://doi.org/10.1016/j.mtcomm.2023.107516">https://doi.org/10.1016/j.mtcomm.2023.107516</a>	December 2023
JOURNAL PAPER (International)	Analog resistive switching behavior in BiCoO <sub>3</sub> thin film	Solid State Electronics/Elsevier	Manisha Kumari, Kajal Jindal, Sandeep Munjal, Monika Tomar, Pradip K. Jha (Joint Author)	<a href="https://doi.org/10.1016/j.sse.2023.108831">https://doi.org/10.1016/j.sse.2023.108831</a>	February 2024

JOURNAL PAPER (International)	Metal Oxide based Carbon Nanocomposite as Sensing Platform for Electrochemical Detection of Cadmium- Computational and Experimental Approach	Microchemical journal/Elsevier	Amit Lochab, Kajal Jindal, Arijit Chowdhuri, Monika Tomar, Reena Saxena (Joint Author)	<a href="https://doi.org/10.1016/j.microc.2024.110125">https://doi.org/10.1016/j.microc.2024.110125</a>	March 2024
JOURNAL PAPER (International)	A self-selector and self-rectifying charge-trap based resistive switching device using In2Se3 thin films	ACS Applied Electronic Materials/ ACS Publications	Chanchal, Kajal Jindal*, Monika Tomar, Pradip K. Jha (Corresponding Author)	<a href="https://doi.org/10.1021/acsaelm.4c00386">https://doi.org/10.1021/acsaelm.4c00386</a>	May 2024
JOURNAL PAPER (International)	A novel photoelectrochemical based water splitting and uric acid biosensing using PLD grown In2Se3 thin films	Electrochimica Acta/Elsevier	Chanchal, Jatinder Pal Singh, Kajal Jindal*, Monika Tomar, Pradip K. Jha (Corresponding Author)	<a href="https://doi.org/10.1016/j.electacta.2024.144933">https://doi.org/10.1016/j.electacta.2024.144933</a>	November 2024
JOURNAL PAPER (International)	Experimental and Computational Insights on the Electrochemical Detection of Diclofenac in the presence of Paracetamol using Asparagine-Modified MWCNTs	Microchemical journal/Elsevier	Amit Lochab, Shefali Baweja, Kajal Jindal, Arijit Chowdhuri, Monika Tomar, Reena Saxena (Joint Author)	<a href="https://doi.org/10.1016/j.microc.2024.112430">https://doi.org/10.1016/j.microc.2024.112430</a>	January 2025
JOURNAL PAPER (International)	Electrochemical Sensing of Paracetamol Using Functionalized MWCNTs: Integrating Computational and Experimental Methods	Analysis & Sensing / Wiley	Amit Lochab, Shefali Baweja, Kajal Jindal, Arijit Chowdhuri, Monika Tomar, Reena Saxena, (Joint Author)	<a href="https://doi.org/10.1002/anse.202400098">https://doi.org/10.1002/anse.202400098</a>	October 2024
JOURNAL PAPER (International)	Fabrication of NO <sub>2</sub> gas sensor based on ?-In2Se3 thin films grown using PLD technique	Journal of Electronic Materials /Springer	Chanchal Jeengar, Kajal Jindal, Monika Tomar, Pradip K. Jha (Joint Author)	<a href="https://doi.org/10.1007/s11664-025-11807-9">https://doi.org/10.1007/s11664-025-11807-9</a>	February 2025

JOURNAL PAPER (International)	An experimental and theoretical investigation of structural and electronic properties of hexagonal BiCoO <sub>3</sub> thin film grown using pulsed laser deposition technique	Journal of Alloys and Compounds /Elsevier	Manisha Kumari, Vidya Mehra, Tahir Ahmad, Kajal Jindal, Monika Tomar, Pradip K. Jha (Joint Author)	<a href="https://doi.org/10.1016/j.jallcom.2025.180251">https://doi.org/10.1016/j.jallcom.2025.180251</a>	May 2025
JOURNAL PAPER (International)	Fabrication of self-powered HfO <sub>2</sub> thin film based low-cost solar-blind deep UV photodetector	Applied Physics A/ Springer	Gunjan Yadav, Kajal Jindal*, Arijit Chowdhuri, Monika Tomar (Corresponding Author)	<a href="https://doi.org/10.1007/s00339-025-08924-x">https://doi.org/10.1007/s00339-025-08924-x</a>	September 2025
CHAPTER (International)	Droplet Based Triboelectric Nanogenerator (DB-TENG) by Conjunction of Photovoltaic and Triboelectric Effect	Springer	Gunjan Yadav, Kajal Jindal, Bilasini Naorem, and Monika Tomar (Joint Author)	<a href="https://doi.org/10.1007/978-3-031-62620-3">https://doi.org/10.1007/978-3-031-62620-3</a>	October 2024

## 8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number

## 9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From-To
2023	FACULTY INDUCTION PROGRAM ATTENDED	ASSISTANT PROFESSOR	National	4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/ Institutes of Higher Education”	20.Jan.2023 - 18.Feb.2023
2022	REFRESHER COURSE ATTENDED	ASSISTANT PROFESSOR	National	Managing Online Classes and Co-Creating MOOCs 3.0 (2 weeks, equivalent to refresher course)	07.Dec.2022 - 21.Dec.2022
2022	FACULTY DEVELOPMENT PROGRAM ATTENDED	ASSISTANT PROFESSOR	National	INCUBATION, ENTREPRENEURSHIP AND INNOVATION	28.Nov.2022 - 04.Dec.2023
2021	FACULTY DEVELOPMENT PROGRAM ATTENDED	CO-COORDINATOR	National	PROGRAMMING IN PYTHON	06.Dec.2021 - 10.Dec.2021

2024	FACULTY DEVELOPMENT PROGRAM ATTENDED	ASSISTANT PROFESSOR	University	Two-Day Faculty Development Programme on Innovation in Teaching Pedagogies: An Integrative Approach	28.May.2024 - 29.May.2024
2025	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	INVITED SPEAKER	International	3rd International Conference on “Advanced Functional Materials and Devices (AFMD-2025)	03.Mar.2025 - 05.Mar.2025
2025	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	RESOURCE PERSON	College	Hands-on Workshop on SPR	28.Feb.2025 - 28.Feb.2025

**Dr. KAJAL JINDAL**