



# Kirori Mal College

(University of Delhi)

University of Delhi, Delhi-110007

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



Print Date : 24-05-2026

## 1. Personal Profile

Title: **Dr.** First Name: **SHYAM** Last Name: .

Designation: **ASSISTANT PROFESSOR** Mobile No. **9557428127**

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

Email: **shyam.15a@kmc.du.ac.in** Webpage: -----



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

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

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

Google Scholar Link: <https://scholar.google.com/citations?user=JaO5FdsAAAAJ&hl=en>

Address: -----

## 2. Educational Qualifications

| Degree/ Certification | Institution                              | Year |
|-----------------------|--|------|
| Ph.D.                 | Indian Institute of Technology Delhi     | 2017 |
| M. Tech.              | Indian Institute of Technology Kharagpur | 2008 |
| M. Sc.                | University of Allahabad                  | 2005 |
| B. Sc.                | University of Allahabad                  | 2003 |

## 3. Career Profile & Administrative Assignments

| Category       | Role/ Designation   | Department/ Committee   | Date From - To            | Remarks |
|----------------|---------------------|---|---------------------------|---------|
| CAREER PROFILE | ASSISTANT PROFESSOR | PHYSICS KIRORI MAL COLLEGE, DELHI                                 | 14.Jan.2019 - Till date   |         |
| CAREER PROFILE | POST DOCTORATE      | PHYSICS LOCIE UMR CNRS 5271, University Savoie Mont Blanc, France | 13.Feb.2017 - 30.Jun.2018 |         |

|                            |                     |   |                           |   |
|----------------------------|---------------------|---|---------------------------|---|
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | STANDING COMMITTEE FOR MONITORING ADMISSIONS KIRORI MAL COLLEGE, DELHI  | 20.Jul.2022 - 30.Jun.2023 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | OTHERS KIRORI MAL COLLEGE, DELHI  | 01.Jul.2022 - 30.Jun.2023 | Member in committee for NAAC criterion 1            |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | STANDING COMMITTEE FOR MONITORING ADMISSIONS KIRORI MAL COLLEGE, DELHI  | 01.Jul.2023 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | SPACE INFRASTRUCTURE COMMITTEE KIRORI MAL COLLEGE, DELHI  | 01.Jul.2023 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | LA-VOICE KIRORI MAL COLLEGE, DELHI  | 01.Jul.2023 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | IQAC Kirori Mal College, University of Delhi  | 01.Jul.2023 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | MASTER PLAN FOR INFRASTRUCTURE PROJECTS Kirori Mal College, University of Delhi   | 18.Jan.2024 - 30.Jun.2024 |   |
| CAREER PROFILE             | ASSISTANT PROFESSOR | PHYSICS GS Mandals Marathwada Institute of Technology, Bulandshahr, Dr. A.P.J. Abdul Kalam Technical University Lucknow | 23.Aug.2008 - 17.Oct.2012 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | HEFA COMMITTEE Kirori Mal College, University of Delhi  | 07.Feb.2024 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | PHYSICS Kirori Mal College  | 01.Jul.2023 - 30.Jun.2024 | Physics Department Workload Committee               |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | ROVER CLUB Kirori Mal College   | 01.Jul.2023 - 30.Jun.2024 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | PHYSICS Kirori Mal College  | 01.Jul.2023 - 30.Jun.2024 | Physics Department - Computer Maintenance Committee |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | IQAC Kirori Mal College, University of Delhi  | 01.Jul.2024 - 30.Jun.2025 |   |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | PHYSICS Kirori Mal College, University of Delhi   | 08.Aug.2024 - Till date   | Committe for add on course on Design Thinking       |
| ADMINISTRATIVE ASSIGNMENTS | MEMBER              | STANDING COMMITTEE FOR MONITORING ADMISSIONS Kirori Mal College, University of Delhi                                    | 01.Jul.2024 - 30.Jun.2025 |   |

#### 4. Other Profiles

**Other Profile Name/ Description**

## **UG/ PG RESEARCH PROJECTS/ INTERNSHIPS**

**Institute:** Dublin Energy Lab, Dublin Institute of Technology, Dublin, Ireland

**Duration:** March 15 to September 15, 2016 (Six months)

**Project:** Thermal modeling of direct absorber solar collectors with nanofluids

**Supervisor:** Prof. Brian Norton

## **AREAS OF INTEREST/ SPECIALIZATION**

Renewable Energy

Photovoltaic thermal (PVT) systems

Energy and Exergy analysis of PVT

Exergo-economic and enviro-economic analysis

## **SUBJECTS TAUGHT**

1. Statistical Mechanics (Core)
2. Mechanics (Core)
3. Elements of Modern Physics (DSE)
4. Renewable Energy and Energy Harvesting (SEC)
5. Basic Instrumentation Skills (SEC)
6. Electrical Circuit and Network Skill (SEC)
7. Computational Physics Skills (SEC)
8. Waves and Optics (GE)

## **AWARDS AND DISTINCTIONS**

DIT Fiosraigh International Scholarship funded by Government of Ireland for six months internship at Dublin Energy Lab, Dublin Institute of Technology, Dublin, Ireland (16-03-2016 to 15.09.2016)

**OTHERS**

Reviewer in following Journals

1. Solar Energy (Elsevier)
2. Applied Energy (Elsevier)
3. Journal of Cleaner Production (Elsevier)
4. Materials Today: Proceedings (Elsevier)

**OTHERS**

Educational visit with students to Inter-University Accelerator Centre (IUAC) New Delhi, to participate in one day workshop on National Science day held on 28 February 2020.

**OTHERS**

Educational visit with students to National Physical Laboratory New Delhi, to participate in one day workshop on National Science day held on 28 February 2019.

**5. Research Guidance**

| Year | Guide For | Title of the Dissertation/ Thesis | Scholar Name | Status |
|------|-----------|-----------------------------------|--------------|--------|
|------|-----------|-----------------------------------|--------------|--------|

**6. Research Projects**

| Year | Title of Project | Sponsorship Agency | Duration | Amount Sanctioned | Date of Sanction |
|------|------------------|--------------------|----------|-------------------|------------------|
|------|------------------|--------------------|----------|-------------------|------------------|

**7. Publications**

| Category                      | Publication Name  | Title   | Name of Author                                    | Reference Link/ DOI Link  | Publication (Month-Year) |
|-------------------------------|---|---|---|---|--------------------------|
| JOURNAL PAPER (International) | Modeling of Silicon Solar Cell with Anti-Reflecting Coating | International Journal of Chemical and Materials Engineering | Ankita Gaur, Mouli Karmakar, Shyam (Joint Author) | <a href="https://publications.waset.org/vol/183">https://publications.waset.org/vol/183</a> | March 2022               |

|                               |   |   |   |   |              |
|-------------------------------|---|---|---|---|--------------|
| JOURNAL PAPER (International) | Modeling of an ammonia–water falling-film generator   | JP Journal of Heat and Mass Transfer  | Ankita Gaur, Benoit Stutz, Shyam, François Boudéhenn (Joint Author)                     | <a href="https://doi.org/10.17654/0973576322002">https://doi.org/10.17654/0973576322002</a>                 | January 2022 |
| JOURNAL PAPER (International) | A thermal model for N-series connected glass/cell/polymer sheet and glass/cell/glass crystalline silicon photovoltaic modules with hot solar cells connected in series and its thermal losses in real outdoor condition | Renewable Energy, Elsevier  | Pramod Rajput, Shyam, Vivek Tomar, G.N. Tiwari, O.S. Sastry, T.S. Bhatti (Joint Author) | <a href="https://doi.org/10.1016/j.renene.2018.03.040">https://doi.org/10.1016/j.renene.2018.03.040</a>     | March 2018   |
| JOURNAL PAPER (International) | Energy matrices, enviroeconomic and exergoeconomic analysis of passive double slope solar still with water based nanofluids   | Desalination, Elsevier  | Lovedeep Sahota, Shyam, G. N. Tiwari (Joint Author)                                     | <a href="https://doi.org/10.1016/j.desal.2017.01.012">https://doi.org/10.1016/j.desal.2017.01.012</a>       | May 2017     |
| JOURNAL PAPER (International) | Analytical characteristic equation of nanofluid loaded active double slope solar still coupled with helically coiled heat exchanger   | Energy Conversion and Management, Elsevier  | Lovedeep Sahota, Shyam, G. N. Tiwari (Joint Author)                                     | <a href="https://doi.org/10.1016/j.enconman.2016.12.078">https://doi.org/10.1016/j.enconman.2016.12.078</a> | March 2017   |
| JOURNAL PAPER (International) | Annual Energy Analysis of a Building Integrated Semi-Transparent Photovoltaic Thermal Facade  | Journal of Solar Energy Engineering, The American Society of Mechanical Engineers | Puja Hazarika, Shyam, Pankaj Kalita, Ankita Gaur (Joint Author)                         | <a href="https://doi.org/10.1115/1.4067371">https://doi.org/10.1115/1.4067371</a>                           | January 2025 |

|                               |  |   |  |   |                |
|-------------------------------|--|---|--|---|----------------|
| JOURNAL PAPER (International) | Analysis of series connected photovoltaic thermal air collectors partially covered by semitransparent photovoltaic module              | Solar Energy, Elsevier                                      | Shyam, G.N. Tiwari (First Author)  | <a href="https://doi.org/10.1016/j.solener.2016.08.052">https://doi.org/10.1016/j.solener.2016.08.052</a> | November 2016  |
| JOURNAL PAPER (International) | Performance evaluation of N - PVT water collectors partially covered by photovoltaic module connected in series: An experimental study | Solar Energy, Elsevier                                      | Shyam, G.N. Tiwari, Olivier Fischer, R. K. Mishra, I. M. Al-Helal (First Author)                     | <a href="https://doi.org/10.1016/j.solener.2016.05.013">https://doi.org/10.1016/j.solener.2016.05.013</a> | September 2016 |
| JOURNAL PAPER (International) | Performance evaluation of PVT greenhouse dryer and development of characteristic curve   | Journal of Renewable and Sustainable Energy, AIP Publishing | Shyam, I. M. Al-Helal, Anil Kumar Singh, G. N. Tiwari (First Author)                                 | <a href="https://doi.org/10.1063/1.4921408">https://doi.org/10.1063/1.4921408</a>                         | May 2015       |
| JOURNAL PAPER (International) | Analytical expression of temperature dependent electrical efficiency of N-PVT water collectors connected in series                     | Solar Energy, Elsevier                                      | Shyam, G.N. Tiwari, I. M. Al-Helal (First Author)  | <a href="https://doi.org/10.1016/j.solener.2015.01.026">https://doi.org/10.1016/j.solener.2015.01.026</a> | April 2015     |
| JOURNAL PAPER (International) | Design of an Earth Air Heat Exchanger (EAHE) for Climatic Condition of Chennai, India  | Open Environmental Sciences, Bentham Open                   | G. N. Tiwari, Vikram Singh, Poonam Joshi, Shyam, Arjun Deo, Prabhakant and Agam Gupta (Joint Author) | 10.2174/1876325101408010024   | November 2014  |

|   |   |  |  |                                 |                |
|---|---|--|--|---------------------------------|----------------|
| JOURNAL PAPER (International)                 | Performance evaluation of PVT mixed mode dryer with load condition  | Journal of Fundamentals of Renewable Energy and Application  | Shyam, G.N. Tiwari (First Author)                                | 10.4172/2090-4541.1000141       | October 2014   |
| CONFERENCE PAPER/ PROCEEDINGS (International) | Conductivity and Photoluminescent Studies of Some PPVs (Conducting Polymers) for its Use in Organic Solar Cells             | Conference Proceeding (SOLARIS 2012)                         | Neha Verma, A.K. Sharma., Shyam and Anil Govindan (Joint Author) |                                 | February 2012  |
| CONFERENCE PAPER/ PROCEEDINGS (International) | Exergy analysis of photovoltaic thermal (PVT) water collectors partially covered by photovoltaic module connected in series | International Conference Green Energy and Technology (ICGET) | Shyam, G.N. Tiwari (First Author)                                | 10.1109/ICGET.2014.6966662      | September 2014 |
| CONFERENCE PAPER/ PROCEEDINGS (International) | Exergy assessment of a semi-transparent building integrated photovoltaic facade for mild weather conditions of Srinagar     | IOP Publishing   | Puja Hazarika, Shyam, Ankita Gaur (Joint Author)                 | 10.1088/1755-1315/1372/1/012087 | June 2024      |
| CHAPTER (National)                            | Solar and Hydropower Energy, Energy Resources, Sustainable Natural Resource Management                                      | IGNOU New Delhi  | Sanjay Agrawal, Shyam (Joint Author)                             |                                 | June 2022      |

## 8. Books

| Category             | Book Name   | Title   | Name of Author  | ISSN/ ISBN Number |
|----------------------|---|---|---|-------------------|
| BOOK (International) | Handbook of Solar Energy: Theory, Analysis and Applications | G. N. Tiwari, Arvind Tiwari, Shyam (Joint Author) | Springer nature 2016, Springer Science + Business media Singapore Private Limited | 978-981-10-0807-8 |

## 9. Faculty Achievements

| Year | Category of Achievement                               | Role        | National/<br>International<br>etc. | Name   | Date From-<br>To          |
|------|---|-------------|------------------------------------|--|---------------------------|
| 2023 | REFRESHER COURSE ATTENDED                             | PARTICIPANT | National                           | Advanced Research Methodology  | 22.Aug.2023 - 05.Sep.2023 |
| 2022 | FACULTY INDUCTION PROGRAM ATTENDED                    | PARTICIPANT | National                           | 4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" | 20.Oct.2022 - 18.Nov.2022 |
| 2021 | FACULTY DEVELOPMENT PROGRAM ATTENDED                  | PARTICIPANT | National                           | five-day Online Faculty Development Programme on Programming in Python   | 06.Dec.2021 - 10.Dec.2021 |
| 2021 | REFRESHER COURSE ATTENDED                             | PARTICIPANT | National                           | TWO - WEEK REFRESHER COURSE IN "PHYSICS"   | 27.Oct.2021 - 10.Nov.2021 |
| 2020 | FACULTY DEVELOPMENT PROGRAM ATTENDED                  | PARTICIPANT | National                           | ICT: Instructional Design Development and Learning Analytics   | 24.Jul.2020 - 30.Jul.2020 |
| 2020 | ONLINE CERTIFICATE COURSE/ TRAINING PROGRAMS ATTENDED | PARTICIPANT | National                           | Bio-Energy: Technologies & Transitions   | 18.May.2020 - 22.May.2020 |
| 2024 | FACULTY DEVELOPMENT PROGRAM ATTENDED                  | PARTICIPANT | National                           | NEP 2020 Orientation & Sensitization Programme   | 07.May.2024 - 16.May.2024 |
| 2025 | FACULTY DEVELOPMENT PROGRAM ATTENDED                  | PARTICIPANT | National                           | Advances in Solar Collector Technologies (Global Initiative of Academic Networks (GIAN) Course)                      | 03.Mar.2025 - 07.Mar.2025 |

**Dr. SHYAM .**