

## RESUME

### Dr. Dilchand Mahto

(M. Sc.- Ph.D., GATE and NET-JRF)

#### **Assistant Professor**

Department of Mathematics,  
Central University of Jharkhand,  
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### Personal Information:

<b>Brief Profile</b>	<p>Dr. Dilchand Mahto is an academician in the field of Mathematics. His area of research are Algebra, Number Theory and Representation Theory that have beautiful application in Operation Research, Computer Science, Data Science and Quantum Mechanics. He has seven years research and more than two years teaching experience. Dilchand received his primary education from local schools which are situated at Petarwar, a block of Bokaro district in Jharkhand State, India. Later he went to Ranchi and obtained his bachelor's degree in Mathematics from Ranchi University Ranchi, India in 2011. There after he qualified JAM and did his master's degree with specialization in Mathematics from Prestigious institute of India namely Indian Institute of Technology, Kanpur in the year 2015. Also, He has qualified GATE-2016 (AIR-132) and awarded NET-JRF in June 2016. From August 2017 to April 2023, he was a Research Scholar in the Department of Mathematics, Central University of Jharkhand, Ranchi, India. Currently he is serving as an Assistant Professor in the Department of Mathematics at Central University of Jharkhand, Ranchi.</p>
<b>Google Scholar Link</b>	<a href="#">Click here</a>
<b>Scopus Id</b>	<a href="#">57219498396</a>
<b>ORCID Id</b>	<a href="#">0000-0001-7705-6895</a>

## Educational Qualifications:

- **Ph. D. in Mathematics** from Central University of Jharkhand, Ranchi, India in the year 2023.  
**Title of the thesis:** Space of Invariant bilinear forms under representation of a finite Group  
**Thesis Supervisors:** Dr. Jitendra Kumar and Prof. Jagmohan Tanti
- **M. Sc. in Mathematics** from IIT Kanpur, Uttar Pradesh, India in the year 2015 with **64.00 %** marks (1<sup>st</sup> division).
- **B. Sc. in Mathematics** from Ranchi University, Ranchi, Jharkhand, India in the year 2011 with **73.00 %** marks (1<sup>st</sup> division).

## Courses Taught:

- **M. Sc.:** Optimization Techniques, Complex Analysis, Topology, Calculus of Variation, Measure Theory and Probability and Mathematical Analysis.
- **M. Tech.:** Mathematical Foundation of Computer Science.
- **B. Tech.:** Mathematics III.
- **BA/B.Sc.:** Optimization Techniques-I, Differential Equation, Calculus and Quantitative Aptitude and Logical Thinking.

## Professional Experience:

- Assistant Professor in Department of Mathematics at Central University of Jharkhand, Ranchi, Jharkhand (February 10, 2023 to till date).

## Research Interest:

- **Representation Theory**
- **Algebra**
- **Number theory**

## Articles Published:

1.	<b>Dilchand Mahto and Jagmohan Tanti:</b> Invariant bilinear forms under the operator group of order $p^3$ with odd prime $p$ , Proyecciones Journal of Mathematics, Vol 42, Issue 6, 1391-1415, 2023
2.	<b>Dilchand Mahto and Jagmohan Tanti:</b> The faithful representations of rigid motions of a regular polygon, The Mathematics Student, Vol 91, Issue 3-4, 127-134, 2022.
3.	<b>Dilchand Mahto and Jagmohan Tanti:</b> Space of invariant bilinear forms under a representation of $SL_2(3)$ , South East Asian Journal of Mathematics and Mathematical Sciences, Vol.-17, Issue 3, 29-44, 2021.

4.	<b>Dilchand Mahto and Jagmohan Tanti:</b> Space of invariant bilinear forms under representation of a group of order 8, Jnanabha, Vol.- 51, Issue 2, 152-160, 2021
5.	<b>Dilchand Mahto and Jagmohan Tanti:</b> Invariant bilinear forms under the rigid motions of a regular polygon ( <b>Communicated</b> ).
6.	<b>Dilchand Mahto:</b> Sum of a finite sequence of product of two cosine functions ( <b>Communicated</b> ).

#### Seminar/ Workshop/ Conference Participation:

- Paper Presented in International Conference on Advanced Mathematical Analysis and its Application (ICAMAA-2020) at Berhampur University, Odisha (India).
- Paper Presented in International Conference on Advances Mathematics and Computing (ICAMC-2020) at VSSUT, Odisha (India).
- Paper Presented in International Conference on “Emerging trends in Pure and Applied Mathematics” (ICETPAM-2022) at Tezpur University, Assam (India).
- Participated AICTE Training and Learning (ATAL) Academy FDP on “**Cyber Security**” Sept 16-20, 2019 at Central University of Jharkhand, Ranchi (India).
- Participated AICTE Training and Learning (ATAL) Academy FDP on “**Robotics**” Dec. 16-20, 2019 at Central University of Jharkhand, Ranchi (India).
- Participated one day workshop on Referencing Tools, Nov 2017 at Central University of Jharkhand, Ranchi (India).

#### Award and Recognition:

- **Qualified NET-JRF in 2016, Organized by Joint CSIR-UGC.**
- **Qualified GATE in 2016, Organized by IISc Bengaluru.**
- **Qualified JAM in 2012, Organized by IIT Bombay.**

#### Skills:

- **MS Office**
- **MATLAB**
- **LATEX**
- **MATHEMATICA**

Place: Central University of Jharkhand

Dilchand Mahto