

## CURRICULUM VITAE

Name: Dr Ratnesh Kumar Mishra

Father's Name: Shri Mahendra Nath Mishra

Present Position: Assistant Professor

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DATE OF BIRTH: 07/07/1981

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### EDUCATIONAL QUALIFICATIONS:

S. No.	Degree	Board/University	Year	Percentage
1.	Ph.D.	MNNIT Allahabad	2013	
2.	M.Sc.	VBSPU Jaunpur	2004	63.8
3.	B.Sc.	VBSPU Jaunpur	2001	62.4

**Ph. D Thesis Topic: A Study of Projective Modules, Generators of Ideals and Modules.**

**Supervisor: Prof Shiv Datt Kumar, Department of Mathematics, MNNIT Allahabad.**

**Advisor: Prof Raja Sridharan, School of Mathematics, TIFR Mumbai.**

**RESEARCH INTERESTS:** Commutative Algebra, Computational Algebra and Fuzzy algebra.

### RESEARCH AWARDS/FELLOWSHIPS RECEIVED:

#### Ph. D. Supervision (With Full Details):

1. Dr. Pratibha, Study commutative rings graded by finitely generated abelian group, DIT University Dehradun, from 2015 to 2019, **awarded** in December 2019 (External Supervisor).
2. Ms. Amarjit Kaur Sahni, Study on fuzzy projective module, Amity University Uttar Pradesh, Noida, U.P. since January 2017 (External Supervisor).

## RESEARCH PUBLICATIONS (With Full Details):

### INTERNATIONAL REFREED SCI/SCOUPUS JOURNALS:

1. Pratibha, **Ratnesh Kumar Mishra** and Rakesh Mohan, “Graded 2-absorbing fuzzy ideals and Graded Weakly 2-Absorbing Primary Fuzzy Ideals”, JARDCS, Volume 11, (2019), 1211—1220. (**Scopus**).
2. Pratibha, **Ratnesh Kumar Mishra** and Rakesh Mohan, “Graded Fuzzy Representable Module And Graded Fuzzy Attached Primes”, JARDCS, Volume 10, (2018), 2435—2444. (**Scopus**).
3. **Ratnesh Kumar Mishra** “Homotopy Sections of One Dimensional Ideals over a Laurent Polynomial Ring”, IJPAM, Volume 114, 4 (2017), 713-718 (**Scopus**), (ISSN:1311-8080), (**S.N. 158 in UGC approved List**).
4. R. Sridharan, Shiv Datt Kumar and **Ratnesh Kumar Mishra** "On Completion of a Unimodular Row to an Elementary Matrix, Mitteilungen Klosterneuburg Journal, Volume 64, Issue 3 (2014), 246-252 (ISSN: 0007-5922), (**WoS & Scopus**), (**S.N. 26311 in UGC approved List**) (I.F. 0.176).
5. Shiv Datt Kumar and **Ratnesh Kumar Mishra**, “Lifting of generators of ideals to Laurent polynomial ring” Beiträge zur Algebra und Geometrie / Contributions to Algebra and Geometry, 54, No. 1 (2013),147-153, Springer publication (**Scopus**), (ISSN 0138-4821), (**S.N. 4705 in UGC approved List**).

### INTERNATIONAL REFREED JOURNALS:

1. **Ratnesh Kumar Mishra**, Stuti Awasthi and Shiv Datt Kumar “A Lifting Problem on Zero Dimensional Ideals over Laurent Polynomial Ring”, Journal of International Academy of Physical Sciences, Volume 16, Number 1 (2012), 69—74, (ISSN 0974 – 9373), (**Journal number 48832 in UGC approved List**).
2. **Ratnesh Kumar Mishra**, Shiv Datt Kumar and Srinivas Behara “ On Projective Modules and Computation of Dimension of a Module over Laurent Polynomial Ring”, International Scholarly Research Network, ISRN Algebra, Volume 2011, Article ID 926165, (2011) 1--11(ISSN 2090-6293).
3. **Ratnesh Kumar Mishra** "Direct Summands of Pseudo Projective Module", Advances in Algebra, Volume 4, Number 2 (2011), 113—120, (ISSN 0973-6964).

#### PAPER SUBMITTED IN SCI JOURNALS:

1. **Ratnesh Kumar Mishra**, Pratibha, Srinivas Behara and Shiv Datt Kumar “Group Graded Secondary Representation of the Graded Modules”, communicated in an international journal.
2. **Ratnesh Kumar Mishra**, Grobner Basis and its applications, communicated in an international journal.
3. Pratibha, **Ratnesh Kumar Mishra** and Rakesh Mohan, “Primary decomposition of graded secondary modules graded over finitely generated abelian groups”, communicated in an international journal.
4. Pratibha, **Ratnesh Kumar Mishra** and Rakesh Mohan, “Secondary Representation For Projective Modules Over Commutative Noetherian Graded Rings”, communicated in an international journal.
5. Amarjit Kaur, **Ratnesh Kumar Mishra**, Jayanti Tripathi and Vinay Kumar, Computation of projective dimension of a fuzzy module, communicated in an international journal.

#### NATIONAL CONFERENCES:

1. Shiv Datt Kumar and **Ratnesh Kumar Mishra** “Some Remarks on Grobner Basis” in the national conference on “Material Science in the service of society” at the C M P Degree College, Allahabad University, Allahabad during February 5-6, 2008.
2. **Ratnesh Kumar Mishra** and Shiv Datt Kumar “Homotopy Sections of Zero Dimensional Ideals over a Laurent-polynomial ring” in the national conference on “Recent Trends in Mathematical Modeling and Simulation” at Banaras Hindu University-Varanasi, during March 18-20, 2010.
3. **Ratnesh Kumar Mishra** and Shiv Datt Kumar “Projective Dimension of a module over Laurent Polynomial Ring” in the national conference in 26<sup>th</sup> Annual Conference of the Mathematical Society-BHU on “Recent Trends in Analysis and Modeling ” at Banaras Hindu University-Varanasi, during November 28-29, 2010.

4. **Ratnesh Kumar Mishra**, Pratibha and Rakesh Mohan “Grobner Basis- Revisited”, in the 31<sup>st</sup> BHU Mathematical society national conference on “MSTASE” at DIT University Dehradun, during November 20-21, 2015.
5. Ankur Narollia, **Ratnesh Kumar Mishra** and Vinod Kumar Gupta “Linear algebra application to real life problems”, in the 31<sup>st</sup> BHU Mathematical society national conference on “MSTASE” at DIT University Dehradun, during November 20-21, 2015.
6. Aditya Kumar, Vinod Kumar Gupta, **Ratnesh Kumar Mishra** and Sandeep Sharma “Application of mathematics in electronic and communication engineering”, in the 31<sup>st</sup> BHU Mathematical society national conference on “MSTASE” at DIT University Dehradun, during November 20-21, 2015.
7. Siddhant Kumar Sinha, **Ratnesh Kumar Mishra** and Pratibha “Application of numerical analysis, commutative algebra and algebraic geometry in oil field problems”, in the 31<sup>st</sup> BHU Mathematical society national conference on “MSTASE” at DIT University Dehradun, during November 20-21, 2015

#### INTERNATIONAL CONFERENCES:

1. Shiv Datt Kumar and **Ratnesh Kumar Mishra** “Projective Modules and Completion of a Unimodular Row to an Elementary Matrix” in the International conference on “74<sup>th</sup> Annual Indian Mathematical Society Conference” at Allahabad University, Allahabad, during December 27 - 30, 2008.
2. **Ratnesh Kumar Mishra** and Shiv Datt Kumar “Pseudo Projective Modules Revisited” in the international conference on “11<sup>th</sup> International Conference of International Academy of Physical Sciences” at Allahabad University, Allahabad, during February 20-22, 2010.
3. **Ratnesh Kumar Mishra** and Shiv Datt Kumar “Lifting of Generators of an Ideal over Laurent Polynomial Ring” in the international conference on “**International Congress of Mathematicians,**” at University of Hyderabad, during August 19-27, 2010.
4. **Ratnesh Kumar Mishra** and Shiv Datt Kumar “A Qualitative version of the Horrocks Theorem over Laurent polynomial ring” in the international conference on “12<sup>th</sup> International Conference of International Academy of Physical Sciences” at Rajasthan University, Jaipur, during December 22-24, 2010.

**5. Ratnesh Kumar Mishra** and Pratibha, “A Report on Grobner Basis and its applications”, in the “18<sup>th</sup> International Conference of International Academy of Physical Sciences” on Recent Trends in Physical Sciences at Allahabad University, Allahabad, during December 22-24, 2015.

**6. Ratnesh Kumar Mishra** and Pratibha, “Commutative rings graded by finitely generated abelian group”, in the “19<sup>th</sup> International Conference of International Academy of Physical Sciences” at Kumaun University Nainital, during October 17-19, 2016.

**7. Ratnesh Kumar Mishra** and Pratibha, “Secondary representation of the graded modules”, in the “TIMC” in cooperation with American Mathematical Society (AMS) at Banaras Hindu University Varanasi, during December 14-17, 2016.

**RESEARCH PROJECTS/Consultancy Projects:**

**CONFERENCE/WORKSHOP ORGANIZED:**

**Organized** a National conference in Mathematics (MSTASE-2015) at DIT University, Dehradun during 20-21 November, 2015 as a Co-Convener.

**TEACHING EXPERIENCE:**

Position Held	Institution	From	To	Nature of Job
Assistant Professor	NIT Jamshedpur	25 May 2018	<b>Till now</b>	Teaching and research
Assistant Professor	Amity University Uttar Pradesh, Noida	22 Feb 2016	24 May 2018	Teaching and research
Assistant Professor	DIT University, Dehradun	16 August 2012	20 Feb 2016	Teaching and research
Visiting Faculty	MNNIT-Allahabad	19 July 2010	31 May 2011	Teaching
Visiting Faculty	MNNIT-Allahabad	21 July 2008	31 May 2009	Teaching

**AWARDS, HONOURS & RECOGNITIONS:** Financial support granted by DST for attending International conference “2012 SIAM conference on Applied Linear Algebra”, Valencia, Spain.

**REVIEWER OF INTERNATIONAL JOURNALS AND BOOKS:**

1. Thai journal of Mathematics
2. Asian Research Journal of Mathematics
3. Asia Mathematika
4. British Journal of Mathematics & Computer Science.

**MEMBER OF PROFESSIONAL ACADEMIC BODIES:**

1. Life Member of Ramanujan Mathematical Society (RMS) ( Reg. Number 761).
2. Life Member of Cryptology Research Society of India (CRSI) (Reg. Number L/0647).

**Experience of Academic Administration**

1. Working as a Warden, Hostel K, NIT Jamshedpur from July 2018 to till now.
2. Worked as a Program Leader BSc.(H) Mathematics from July 2017 to May 2018, Amity University Uttar Pradesh, Noida.
3. Worked as a mentor of M.Sc.- Applied Mathematics (2016-17) at Amity University Uttar Pradesh, Noida.
4. Worked as Website Manager (Mathematics Department), DIT University, Dehradun from January, 2015 to Feb 2016.
5. Worked as a Warden, DIT University, Dehradun from October 2012 to December, 2014
3. Worked as Class Coordinator, DIT University, Dehradun from August 2012 to December, 2014.
4. Worked as Ph.D (Mathematics) Entrance Coordinator DIT University, Dehradun from 2013 to 2014.

**Any Other Information:**

1. Participated in summer school on “Advanced Instructional School on Commutative Algebra” held at IIT Bombay- Bombay during 14 May -03 June, 2009.

2. Participated in winter School on “Sixth Annual Foundation School (Part -I)” held at Chennai Mathematical Institute-Chennai during 03 December -30 December, 2009.
3. Participated in summer School on “Sixth Annual Foundation School (Part -II)” held at Bhaskaracharya Pratishthana, Pune during 31 May - 26 June 2010.

**References:**

1. Dr. Raja Sridharan  
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