
# Dr Mahesh Puri Goswami

*(M.Sc., NET, SET, GATE, Ph.D.)*

*Curriculum Vitae*


## PERSONAL DETAILS


| | | |
|---|---|---|
| Corresponding Address | : | 195/14, Ashok Nagar, Udaipur (Rajasthan)- 313001, India |
| Mobile | : | +91-9694553398, +91-9694154820 |
| Father's Name | : | Sh. Nanda Puri Goswami |
| Date of Birth | : | 30$^{th}$ June, 1989 |
| E-mail | : | maheshgoswami1989@gmail.com, maheshgoswami@mlsu.ac.in |


## APPOINTMENTS

**Assistant Professor of Mathematics** — 25 June, 2012 to 2 February, 2013

*Poornima Group of Institutions, Jaipur, India.*

- Engineering Mathematics

**Lecturer of Mathematics** — 4 February, 2013 to 24 July, 2013

*Vivekananda Institute and Technology, Jaipur, India.*

- Engineering Mathematics

**Assistant Professor of Mathematics** — 20 March, 2017 to 3 January, 2018

*Anand International College of Engineering, Jaipur, India.*

- Engineering Mathematics

**Assistant Professor of Mathematics** — 4 January, 2018 to 7 July, 2018

*Government Engineering College,Bharatpur, India.*

- Engineering Mathematics

**Assistant Professor of Mathematics** — 9 July, 2018 to Till date

*University College of Science, Mohanlal Sukhadia University, Udaipur, India.*

- B.Sc. and M.Sc. Mathematics

## RESEARCH INTERESTS

- Bicomplex Analysis, Multicomplex Space, Fractional Calculus.

## EXPERIENCE

- Four years teaching experience of CBSE and Rajasthan Board syllabus upto 12th in Jaipur.
- Ten years teaching experience in engineering and degree colleges after post graduation.

## PROFESSIONAL QUALIFICATION

- RPSC SET 2012 qualified.
- GATE 2013 qualified.
- CSIR NET June 2017 qualified.

## EDUCATION

**Ph.D. Mathematics (Awarded)** 2013-2017
*Malaviya National Institute of Technology, Jaipur, India.*
Thesis Supervisor: Dr. Ritu Agarwal, Malaviya National Institute of Technology, Jaipur, India.

**M.Sc. Mathematics** 2010-2012
*Central University of Rajasthan, Kishangarh, Rajasthan*

**B.Sc. (Hons.)** 2006-2009
*Maharaja College Jaipur, Rajasthan*

## QUALIFICATIONS

| Examination | University/Board | Institute | Year of Passing | Percentage/ CGPA |
|---|---|---|---|---|
| Ph.D. | National Institute of Technology, Jaipur | Malaviya National Institute of Technology, Jaipur | Awarded | |
| M.Sc. Mathematics | Central University of Rajasthan | Central University of Rajasthan | 2012 | 91.60 % |
| B.Sc. | Rajasthan University | Maharaja College,Jaipur Rajasthan | 2009 | 64.00 % |
| Intermediate | RBSE | N.K. Sr. Sec. School, Jaipur, Rajasthan | 2006 | 77.08 % |
| Matriculation | RBSE | Govt. Sec. School, Tigaria, Jaipur, Rajasthan | 2004 | 82.67 % |

## PUBLICATIONS

1. Goswami M.P. and Kumar R. (2023), Generalization of Riemann-Liouville Fractional Operators in Bicomplex Space and Applications, *Mathematics and Statistics*, **11**(5), 802-815, DOI: 10.13189/ms.2023.110506, **UGC-CARE List Group A (Scopus)**, ISSN No. 2332-2071.

2. Goswami M.P. and Kumar R. (2022), The Bicomplex Laplace Transform Of Riemann-Liouville Fractional Operators: Properties and Implication, *Rajasthan Academy of Physical Sciences*, **21**(3-4), 223-242, **UGC-CARE List Group A (Web of Science)**, ISSN No. 0972-6306.

3. Goswami M.P. and Kumar R. (2022), Riemann-Liouville fractional operators of bicomplex order and its properties, *Mathematical Methods in the Applied Sciences*, **45**(10), 5699-5720, DOI: 10.1002/mma.8135, **UGC-CARE List Group A (Web of Science)**, ISSN No. 1099-1476.

4. Goswami M.P. and Jha N. (2020), Triple Laplace transform in bicomplex space with application, *Mathematics and Statistics*, **8**(4), 443-450, DOI: 10.13189/ms.2020.080411, **UGC-CARE List Group A (Scopus)**, ISSN No. 2332-2071.

5. Agarwal R., Goswami M.P., Agarwal R.P., Venkataratnam K.K. and Baleanu D. (2017), Solution of Maxwell's Wave Equations in Bicomplex Space, *Romanian Journal of Physics*, **62**(5-6) Article no. 115, 1-14, **UGC-CARE List Group A (Web of Science)**, ISSN No. 1221-146X.

6. Agarwal R., Goswami M.P. and Agarwal R.P. (2016), Mellin Transform in Bicomplex Space and Its Application, *Studia universitatis Babes-Bolyai Mathematica*, **62**(2), 217-232, **UGC-CARE List Group A (Web of Science)**, ISSN No. 2065-961X.

7. Agarwal R., Goswami M.P. and Agarwal R.P. (2016), Bochner Theorem and Applications of Bicomplex Fourier-Stieltjes Transform, *Advanced Studies in Contemporary Mathematics,* **26**(2), 355-369, **UGC-CARE List Group A (Scopus)**, ISSN No. 1229-3067.

8. Agarwal R., Goswami M.P. and Agarwal R.P. (2015), Tauberian Theorem and Applications of Bicomplex Laplace-Stieltjes Transform, *Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications & Algorithms*, **22**(2), 141-153, **UGC-CARE List Group A (Scopus)**, ISSN No. 1492-8760.

9. Agarwal R., Goswami M.P. and Agarwal R.P. (2014), Bicomplex Version of Stieltjes Transform and Applications, *Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications & Algorithms*, **21**(4-5), 229-246, **UGC-CARE List Group A (Scopus)**, ISSN No. 1492-8760.

10. Agarwal R., Goswami M.P. and Agarwal R.P. (2017), A Study of Mellin Transform of Fractional Operators in Bicomplex Space and Application, *Journal of Fractional Calculus and Applications*, **8**(2), 211-226, **UGC-CARE List Group D**, ISSN no. 2090-584X.

11. Goswami M.P., Agarwal R. and Agarwal R.P. (2019), Double Laplace Transform in Bicomplex Space with Applications, *Advances in Mathematical Sciences and Applications*, **18**(2), 255-271, ISSN No. 1343-4373.

12. Agarwal R., Goswami M.P. and Agarwal R.P. (2014), Convolution Theorem and Applications of Bicomplex Laplace Transform, *Advances in Mathematical Sciences and Applications*, **24**(1), 113-127, ISSN no. 1343-4373.

13. Agarwal R., Goswami M.P. and Agarwal R.P. (2016), Hankel Transform in Bicomplex Sapce with Application, *Transylvanian Journal of Mathematics and Mechanics*, **8**(1), 1-14, ISSN no. 2067-239X.

14. Agarwal R., Goswami M.P. and Agarwal R.P. (2017), Sumudu transform in Bicomplex Space and Its Applications, *Annals of Applied Mathematics,* **33**(3), 239-253.

## PUBLICATIONS: BOOK CHAPTERS

1. Agarwal R. Sharma U.P., and Goswami M.P. (2022), A quick survey of the bicomplex integral transforms and their applications, In book: Recent Advances in Mathematical Analysis and their Applications Publisher: Department of Mathematics, University of Kerala, India.

## PUBLICATIONS: BOOKS

1. Goswami M.P., Saini J.P., and Saini M.C. (2020), *Differential Calculus*, Neelkanth Publishers(P) Ltd., ISBN- 978-93-88941-87-7.

2. Goswami M.P., Saini M.C., Saini J.P., and Meghwal R. (2020), *Integral Calculus*, Neelkanth Publishers(P) Ltd., ISBN- 978-93-88941-86-0.

## INVITED TALKS IN WORKSHOPS/ SHOT TERM COURSES/ CONFERENCES

1. I Participated as a **Key Resource person** in one week online students workshop on **"Learning System for Engineering Research"** organized by Department of Mathematics, Govt. Engineering College, Bharatpur, Rajasthan, from $05^{\text{th}} - 10^{\text{th}}$ September, 2020.

2. I Participated as a **Key Resource person** in TEQIP-III sponsored One Week Short Term Course on **"Latex & Mathematica For Beginners"** organized by Department of Applied Sciences, Govt. Engineering College, Banswara, Rajasthan, from $27^{\text{th}} - 31^{\text{st}}$ August, 2019.

3. I Participated as a **Key Resource person** in National workshops on **"Computational Techniques for Education and Research"** organized by Department of Mathematics & Statistics, Mohanlal Sukhadia University, Udaipur, Rajasthan, from $19^{\text{th}} - 23^{\text{rd}}$ November, 2018.

4. I Participated as a **Key Resource person** in workshops on **"Latex"** organized by Department of Mathematics & Statistics, Mohanlal Sukhadia University, Udaipur, Rajasthan, from $27^{\text{th}} - 27^{\text{th}}$ October, 2018.

5. I Participated as a **Key Resource person** in workshops on **"Latex"** organized by Department of Mathematics & Statistics, Mohanlal Sukhadia University, Udaipur, Rajasthan, from $13^{\text{th}} - 13^{\text{th}}$ October, 2018.

## NATIONAL/ INTERNATIONAL CONFERENCES

1. I presented a paper titled as **Generalization of Riemann-Liouville Fractional Operators in Bicomplex Space and Applications** in **6th International Conference on Mathematics "An Istanbul Meeting for World Mathematicians"** held at Istanbul, Turkey during June 21-24, 2022.

2. I presented a paper titled as **Triple Laplace Transform in Bicomplex Space with Applications** in **International Conference on Recent Advances at Interfaces of Physical and Life Sciences (RAIPLS-2019)** held at Department of Chemistry, University of Rajasthan, Jaipur during January 28-30, 2019.

3. I presented a paper titled as **Mellin Transform in Bicomplex Space and Its Application** in **International conference on Finite Infinite Dimensional Complex Analysis and Applications (24'ICFIDCA 2016)** held at Department of Mathematics, Anand International Engineering college, Jaipur during August 22-26, 2016.

4. I presented a paper titled as **Hankel Transform in Bicomplex Space** in **International conference on Analysis and Its Applications (ICAA 2015)** held at Department of Mathematics, Aligarh Muslim University, Aligarh during December 19-21, 2015.

5. I presented a paper titled as **Bicomplex Double Laplace Transform and Applications** in **International conference on Special Functions** & **Their Applications (ICSFA 2015)** held at Department of Mathematics Amity Institute of Applied Sciences, Amity university, Noida during September 10-12, 2015.

6. I presented a paper titled as **Tauberian Theorem and Applications of Bicomplex Laplace-Stieltjes Transform** in **National conference on Mathematical Analysis and Computation (NCMAC 2015)** held at Department of Mathematics and Department of Computer Science and Engineering, Malaviya National Institute of Technology, Jaipur during February 20-21, 2015.

7. I presented a paper titled as **Bochner's theorem of bicomplex Fourier-Stieltjes transform** in **National conference on Computational and Mathematical Sciences (COMPUTATIA-IV 14)** held at Vivekananda Institute of Technology Jaipur during November 25-26, 2014.

8. I presented a paper titled as **Bicomplex version of Laplace-Stieltjes Transform and Applications** in **National conference on Science Engineering (NCSE 14)** held at JK Laxmipat University Jaipur during July 27-28, 2014.

9. I presented a paper titled as **Bicomplex version of Stieltjes Transform** in **National on conference Mathematical Techniques in Engineering Applications** held at Vivekananda Global University Jaipur during April 4-5, 2014.

10. I presented a paper titled as **Bicomplex version of Inverse Laplace Transform** in **National conference on Complex Analysis in Honour of Late prof. K.S. Padmanabhan** held at Department of Mathematics, Central University of Rajasthan Kishangarh, Ajmer during March 8-9, 2014.

## SEMINAR/ WORKSHOP/ SHORT TERM TRAINING PROGRAMME/ FACULTY DEVELOPMENT PROGRAMME

1. I participated in the **Five Days (Hybrid) International FDP on "Industry 4.0 and Smart Manufacturing"** organized by the Anand International College of Engineering, Jaipur form February 27 to March 03, 2023.

2. I participated in the **Five Days International FDP on "Innovation in Materials for Advancements in Mechanical Industries"** organized by the Anand International College of Engineering, Jaipur form January 17 to January 22, 2022.

3. I participated in the **Teachers Enrichment Workshop on Complex Analysis and Geometry** organized by the Malaviya National Institute of Technology, Jaipur form December 12 to December 17, 2022.

4. I participated in the **Five days MHRD- TEQIP- KITE TEQIP-III Faculty Induction Workshop** organized by the Department of Chemical Engineering, Department of Electrical Engineering and CDEEP, Indian Institute of Technology, Bombay form January 29 to February 02, 2018.

5. I participated in the **Five days Short Term Course on Advanced Operations Research through ICT** organized by the Department of Applied Sciences, National Institute of Technical Teachers Training and Research, Chandigarh form January 08-12, 2018.

6. I participated in the National Centre for Mathematics **Instructional School for Teachers on Algebra** organized at the Department of Mathematics, Malaviya National Institute of Technology, Jaipur form December 07-19, 2015.

7. I participated in the **Five days Short Term Course on Analysis and Applications (STCAA 2014)** organized by the Department of Mathematics, Malaviya National Institute of Technology, Jaipur form November 10-14, 2014.

8. I participated in the **Two day workshop on Professional Communication** organized by the Department of Humanities & Social Sciences, Malaviya National Institute of Technology, Jaipur form July 10-11, 2014.

## FACULTY INDUCTION PROGRAMME/ REFRESHER COURSES

1. I participated in **Refresher Course in Mathematics (Online)** organized by Teaching Learning Centre, Ramanujan College, University of Delhi form April 29 to May 13, 2023 and obtained Grade **'$A^+$'**.

2. I participated in **Refresher Course in Educational Policies and Reforms: New Perspectives (Multidisciplinary)** organized by Human Resource Development Centre, University of Rajasthan, Jaipur form November 15 to November 27, 2021 and obtained Grade **'A'**.

3. I participated in **1st Faculty Induction Programme** organized by Human Resource Development Centre, University of Rajasthan, Jaipur form September 07 to October 06, 2020 and obtained Grade **'A'**.

## PROFESSIONAL AFFILIATION

- A Life-Time Membership of the *Ramanujan Mathematical Society.*
- A Life-Time Membership of the *Rajasthan Ganit Parishad.*
- Reviewer of a journal *"Mathematics and Statistics"*, **UGC-CARE List Group A (Scopus)**, ISSN No. 2332-2071, Publisher: Horizon Research Publishing, USA.

## RESEARCH SUPERVISED

1. Mr Rajkumar on **A Study of Riemann-Liouville Fractional Differential and Integral Operators in Bicomplex Space with Applications**, Year - May 2019 to April 2023 (Submitted).

2. Mr Mukesh Kumar on **A Study of Fractional Order Caputo Derivative in Bicomplex Space and Applications**, Year - March 2021 to Till Date (Ongoing).

3. Ms Pragya Gupta on **Multicomplex Space and Applications**, Year - June 2022 to Till Date (Ongoing).

4. Ms Sonu Jatrana on **Bicomplex Analysis and Applications**, Year - August 2023 to Till Date (Ongoing).

## RESEARCH PROJECT

| Title | Total Outlay (In Lacs) | Year | Funding Agency | Role |
|---|---|---|---|---|
| Applications of bicomplex algebra to fundamental Electromagnetics using fractional calculus | 5.4264 | 2019-Till date(Ongoing) | RUSA 2.0 | PI |

## DECLARATION

I hereby declare that all the information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Yours Faithfully

**(Dr Mahesh Puri Goswami)**