

## DR. MEENAKSHI RANA

---

I am motivated to pursue a career in teaching and research and want to contribute my best to the organization, community and my country.

### Experience

2008 onward	<b>Assistant Professor</b> , Thapar University	Patiala, Punjab
2005–2008	<b>Lecturer</b> , Chitkara University	Banur, Punjab
2004–2005	<b>Lecturer</b> , SSIET	Dera Bassi, Punjab

Education Panjab University, Chandigarh

- 2010, Ph.D, Mathematics, (P.U.)
- 2003, M.Sc. (Hons.), Mathematics, (P.U.)
- 2001, B.Sc. (Hons.), Mathematics, (P.U.)

### Publications

#### Communicated:

1. **M. Rana**, J. K. Sareen, “On Generalized q-Series and Andrew’s F-Color Partitions”
2. **M. Rana** and J. K. Sareen, “Bijection Between Split (n+t)-Color Partitions and 2-Color F-Partitions”

#### Published/Accepted

1. J. K. Sareen and **M. Rana**, “Combinatorics of Tenth Order Mock Theta functions”, **PROC. OF THE INDIAN ACAD. SCI. (MATH. SCI)**, (2016) (Accepted)
2. **M. Rana**, J. K. Sareen And D. Chawala, “On Generalized q-Series and Split (n+t)-Color Partitions”, **Utilitas Mathematica**, (2015) (Accepted)
3. **M. Rana** and J. K. Sareen, “On Combinatorial Extensions of Some Mock Theta Functions Using Signed Partitions”, **Advances in Theoretical and Applied Mathematics**, Vol. 10, No.1, pp 15-25 (2015)
4. J. K. Sareen and **M. Rana**, “Four-way combinatorial interpretations of some Rogers-Ramanujan type identities”, **ARS -Combinatoria**, (2014).( Accepted) (**Impact Factor-0.268**)
5. **M. Rana**, “Partition theoretic interpretations of the  $A_2$  Rogers-Ramanujan identities”, **ARS Combinatoria** (Accepted), (2013). (**Impact Factor-0.268**)
6. A.K. Agarwal and **M Rana**, “Combinatorial interpretation of a generalized basic series”, **Analytic Number Theory, approximation Theory, and special functions**, DOI 10.1007/978-1-4939-0258-3\_7 **HMS-Volume, Springer**, 215-225 (2013).
7. A K Agarwal and **M Rana**, New combinatorial versions of Gollnitz- Gordon identities, **Utilitas Mathematica**, Vol. 79 (2009), pp. 145-155. (**Impact Factor-0.28**)
8. **M Rana** and A K Agarwal, On an extension of a combinatorial identities, **Proc. Indian Acad. Sci. (Math. Sci)**, Vol. 119, No. 1, (2009), pp. 1-7. (**Impact Factor-0.191**)

9. A K Agarwal and **M Rana**, Two new combinatorial interpretations of a fifth order mock theta function, **Journal of The Indian Mathematical Society**, Special Centenary Volume (1907-2007), (2009), pp 11-24.
10. **M Rana** and A K Agarwal, Frobenius partition theoretic interpretation of a fifth order mock theta function, **Canadian Journal of pure & applied sciences**, Vol. 3, No.2, (2009), pp. 859-863.

## **Conferences**

### **Abroad**

- **M.Rana**, “Split  $(n+t)$ -Color Partitions And 2-Color F-Partitions”, Connections in Discrete Mathematics, **15-19 June, 2015, Simon Fraser University, Burnaby, Canada.**

### **India**

1. **M.Rana**, “**On Split  $(n+t)$ -Color Partitions, 2-Color F-Partitions and Mock Theta Functions**”, South Asian Mathematics Research Scholars Meet , 8-9 May, 2015, South Asian University, New Delhi.
2. **M.Rana**, “**On Combinatorics of RRI**”, 18<sup>th</sup> Punjab Science Academy Annual Conference, 7-9 February, 2015, Desh Bhagat University, Mandi Gobindgarh, Punjab, India.
3. **M.Rana**, “**On some extension of Tenth order mock theta functions**”, International Conference of Special Functions and Their Applications, 16-18 October, 2014, Thapar University, Patiala, India.
4. **M.Rana**, “**Three way combinatorial interpretations of some RRI**”, International Conference of Special Functions and Their Applications, 13-15 December, 2013, MVNIT, Jaipur, India.
5. **M.Rana** and H.Kaur, “**Combinatorial interpretations of some tenth order mock theta functions**”, National Conference on Advances in Mathematics & its Applications in Mathematics & its Applications, 25-27 June, 2013, NIT, Hamirpur, India.
6. **M.Rana**, “**Partition theoretic interpretations of Some double series q- identities**”, International Conference of Special Functions and Their Applications, 27-29 June, 2012, SVNIT, Surat, India.
7. **M.Rana**, “**Partition theoretic interpretations of RR type identities**”, Twenty first International conference of forum for Interdisciplinary Mathematics, 15-17 Dec, 2012, P.U., Chandigarh, India.
8. **M.Rana**, “**On a fifth order mock theta function**”, 98<sup>th</sup> Indian Science Congress, 3-7 Jan, 2011, SRM University, Chennai, India.
9. **M.Rana** and A.K.Agarwal, “**New combinatorial versions of Gollnitz-Gordon identities**” 11<sup>th</sup> Punjab Science congress, 7-9 Feb, 2008, T. U., Patiala, India.
10. **M.Rana** and A.K.Agarwal, “**Partition theoretic interpretation of a fifth order mock theta function**” 74<sup>th</sup> annual conference of IMS, 27-30 Dec, 2008, University of Allahabad, Allahabad, India.
11. **M.Rana** and A.K.Agarwal, “**On a Combinatorial identity**”, 73<sup>rd</sup> annual conference of IMS, 27-30 Dec, 2007, University of Pune, Pune, India.

## Project

- Project No. 25(5672)/16 funded by CSIR on topic “On q-series, split n-color partitions and F-partitions”
- Project No. NBHM/R.P.31/2015/Fresh/158 funded by NBHM on topic “On combinatorics of q-series, Rogers - Ramanujan type identities and split n-color partitions”

## Thesis

### **Ph.D Thesis**

- Ms. Jasdeep Kaur, “Rogers-Ramanujan identities type identities and Combinatorics” (Pursuing)
- Ms. Monica Sethi-“On QoS metrics” (Pursuing)
- Ms. Vasudha-Doing course work

### **M.Sc. Thesis**

1. Priyanka, 2016, “ A survey on colored partition and q-series”
2. Diksha Chawala, 2015, “ Rogers-Ramanujan Identities and split (n+t) color Partition”
3. Nisha, 2015, “On Study of Lattice Paths”
4. Shelja Dutta, 2014, “On n-colour Compositions”
5. Avneet Kaur, 2013, “A Study of ordinary, colored and signed Gollnitz-Gordon identities”
6. Rajni Mittal, 2012, “A Study of Gollnitz-Gordon identities”
7. Richa Bansal, 2011, “A Study of Guassian polynomial”
8. Rajni Bansal, 2011, “Combinatorial interpretations of Rogers-Ramanujan identities and their analogues”
9. Inderpal Singh, 2010, “A Study of Coloured partitions”

## Memberships

1. Life member of Ramanujan Mathematical Society(644)
2. Life member of Indian Mathematical Society(R-10-131)
3. Life member of Society for Special function and their Applications(804)
4. Life member of Indian Science Congress(L-16404)
5. Life member of Punjab Academy of Sciences(L-1406)

## Awards & Achievements

- 2<sup>nd</sup> Rank in M.Sc. (Hons.) Mathematics Panjab University (2003).
- 4<sup>th</sup> Rank in B.Sc.(Hons.) Mathematics in Panjab University (2001).

- Awarded by best paper in number Theory/Algebra in Indian Mathematical Society Annual Conference (IMS)-2007.

### **Conference Organized**

Successfully Organized “International Conference of Special Functions and Their Applications”, 16-18 October, 2014, (The information of the conference was available on AMS and SIAM website.) as Convener at Thapar University, Patiala, India

### **Invited Talks**

1. “On Multiple Integrals and its applications in engineering, October 20, 2015, Chandigarh Engineering College, Landran, Mohali, Punjab, India.
2. “On some extension of Tenth order mock theta functions”, International Conference of Special Functions and Their Applications, 16-18 October, 2014, Thapar University, Patiala, India.
3. “Applications of Mathematics in Engineering, Rayat and Behra Institute for Women, Khrar, Mohali, February 07, 2014.
4. “Three way combinatorial interpretations of some RRI” International Conference of Special Functions and Their Applications, 13-15 Dec, 2013, MVNIT, Jaipur, India.