

List of Publications of Dr. R. K. Jana

Journal (16), Conference (33), Scientific Report (02), Book (01)

Publications in International Journals: (13 published, 01 accepted)

1. P. Chatterjee, **R. K. Jana** and B. Das, “Effect of electron inertia on the speed & shape of ion-acoustic solitary waves in relativistic plasma”, **Czechoslovak Journal of Physics**, Vol. 54, No. 4 (2004), pp. 489-496. (Springer)
2. P. Chatterjee and **R. K. Jana**, “Speed and Shape of Dust Acoustic Solitary Waves in the presence of dust streaming”, **Z Naturforschung (Germany)**, Vol. **60a** (2005), pp. 275-281.
3. P. V. Shah, **R. K. Jana**, A. D. Patel and I. A. Salehbbhai, “Some Results Based on Generalized Mittag-Leffler Function”, **Int. Journal of Math. Analysis**, Vol. 6, No. 11 (2012), pp. 503-508.
4. S. J. Rapeli, **R. K. Jana**, P. V. Shah and A. D. Patel, “Sheffer Polynomials in three variables”, **Int. J. Contemp. Math. Sciences**, Vol. 7, No. 30 (2012), pp. 1477-1485.
5. **R. K. Jana**, I. A. Salehbbhai and A. K. Shukla, “Shivley’s Polynomials of Two Variables”, **Int. Journal of Math. Analysis**, Vol. 6, No. 36 (2012), pp. 1757-1762.
6. P. V. Shah and **R. K. Jana**, “Results on Generalized Mittag-Leffler Function via Laplace Transform”, **Applied Mathematical Sciences**, Vol. 7, No. 12 (2013), pp. 567–570.
7. J. C. Prajapati, R. K. Saxena, **R. K. Jana** and A. K. Shukla, “Some Results on generalized Mittag-Leffler function Operator”, **Journal of Inequalities and Applications**, 2013, 2013:33 doi:10.1186/1029-242X-2013-33. (Springer)
8. I. A salehbbhai, **R. K. Jana** and A. K. Shukla, “Extensions of Generalized Bessel Functions”, **Journal of Inequalities and Special Functions**, Vol. 4, No. 2 (2013), pp. 1-12.
9. S. P. Karia, K. N. Pathak, K. S. Yadav, N. P. Chaudhary, N. C. Patel and **R. K. Jana**, “Modification in Atmospheric Refractivity and GPS Based TEC as Earthquake Precursors”, **Positioning**, Vol. 5 (2014), pp. 46-52.
10. R. K. Saxena, J. P. Chauhan, **R. K. Jana** and A K Shukla, “Further Results on the Generalized Mittag-Leffler function operator”, **Journal of Inequalities and Applications**, (2015), 2015:75, DOI 10.1186/s13660-015-0589-4.
11. J. P. Chauhan, P. V. Shah, **R. K. Jana** and A. K. Shukla, “Analytic Solution for RLC Circuit of Non-integer order”, **Ital. J. Pure and Appl. Math.**, N. 36 (2016), pp. 819-826.
12. **R. K. Jana**, B. Maheshwari and A. K. Shukla, “Generating Function for the extended Wright type hypergeometric function” **Commun. Korean Math. Soc.**, 32 (2017), No. 1, pp. 75-84.
13. R. Das, **R. K. Jana**, M. De and M. Maiti, “Prices and order quantities of substitutable products in an EPQ Model over different uncertain finite budget constraints”, **Journal of Intelligent and Fuzzy Systems**, Vol. 33, No. 1 (2017), pp. 229-244.
14. J. P. Chauhan, P. V. Shah, **R. K. Jana** and A. K. Shukla, “Analytic and Approximate Solution of Fractional RLC Circuit model”, Accepted for publication in **Ital. J. Pure and Appl. Math.**

Publications in National Journals (02)

15. P. Chatterjee, **R. K. Jana** and B. Sen, “Speed and Shape of electron acoustic solitary waves in plasma”, **Indian J. Physics**, Vol.79, No. 5 (2005), pp. 523-527. (Springer)
16. **R. K. Jana**, S. J. Rapeli and A. K. Shukla, “Generalized Sheffer's classification and their q -analogue”, **Journal of Indian Mathematical Society**, Vol. 84, No. 3-4 (2017).

Scientific Report: 02

1. “Statistical Evaluation of Mesoscale Model forecast during PSLV-C6 Launch” with R Singh, Rakesh V, P K Pal and P C Joshi, Scientific Report, SAC/RESIPA/MOG/ASD/ Meso-SR/04/2005.
2. “Upper Tropospheric Humidity (UTH) from INSAT-3A and KALPANA data” with P K Thapliyal, S Shah, P K Pal and P C Joshi, Scientific Report, July 2005.

International Conference Proceedings / presentations (22)

1. “Assimilation of Level-II MODIS Temperature and Moisture Profiles in a Non-Hydrostatic Mesoscale Model (MM5)” with R Singh, S H Rahman, P K Pal, B Simon and P C Joshi, published in the proceeding of **International Conference of Mesoscale Processes in Atmosphere, Ocean and Environmental Systems (IMPA2006)** held at IIT Delhi during February 14-17, 2006. (paper presented by R Singh)
2. “Sensitivity of Mesoscale Model Forecast during a Satellite Launch to convective Parameterization Schemes” with V Rakesh, R Singh, P K Pal and P C Joshi, published in the proceeding of **International Conference of Mesoscale Processes in Atmosphere, Ocean and Environmental Systems (IMPA2006)** held at IIT Delhi during February 14-17, 2006. (paper presented by V Rakesh)
3. “Application of Mathematics in Atmospheric Sciences”, published in the proceeding of **International Conference on Analysis and its Applications (ICAA-08)** held at Dept. of Mathematics, Aligarh Muslim University, U.P. during November 3-5, 2008.
4. “Comparative Study of Deterministic and Stochastic Behavior of Holling Type IV Model” With D Sadhukhan, B Mondal and M Maiti, published in the proceeding of **1st IFIP International Conference on Bioinformatics** held at AMHD, SVNIT during March 25-28, 2010.
5. “On Pseudo Laguerre Polynomials of Two Variables”, published in the proceeding of **International Conference of Special Functions and Their Applications (ICSEFA 2011)** held at Department of Mathematics & Statistics, J N Vyas University, Jodhpur during July 28-30, 2011.
6. “Some Basic Results of Two Variable Polynomials” with I A Salehbhai and A K Shukla, published in the proceeding of **14th International Conference of International Academy of Physical Sciences (CONIAPS XIV)** held at SVNIT, Surat during December 22-24, 2011.
- *7. “Shivley's Polynomials of Two Variables”, published in the proceeding of **Spring 2012 Eastern Sectional Meeting of the American Mathematical Society** held at George Washington University, Washington DC, USA during March 17-18, 2012.
- *8. “Some Properties of Generalized Mittag-Leffler Function via Fractional Calculus”, published in the proceeding of **15th International Conference of International Academy of Physical Sciences (CONIAPS XV)** held at Rajamangala University of Technology, Thanyaburi, Thailand, during December 09 -13, 2012.
- *9. “Extension of Generalized Bessel Functions” with I A Salehbhai and A.K. Shukla, published in the proceeding of **15th International Conference of International Academy of Physical Sciences (CONIAPS XV)** held at Rajamangala University of Technology, Thanyaburi, Thailand, during December 09 -13, 2012.
- *10. “Bessel Function Series in connection with Ramanujan’s Mathematics” published in the proceeding of **Spring 2014 Central Sectional Meeting of the American Mathematical Society** held at Texas Tech University, Lubbock, Texas, USA during April 11-13, 2014.
- *11. “A q-analogue of Sheffer polynomials and related theorems” published in the proceeding of **Midwest Number Theory Conference** held at University of Illinois at Urbana-Champaign, USA during June 3-4, 2014.

- *12. “On Some Properties of Konhauser Polynomial via Generalized Mittag-Leffler Function” published in the proceeding of **Central Fall Sectional Meeting of American Mathematical Society**, at University of Wisconsin-Eau Claire, Eau Claire, USA during September 20 -21, 2014.
13. “Equivalence between 4-D Variational data assimilation and Kalman Filter in Numerical Weather Prediction” with A. Shah and P. Gauthier, published in the proceeding of **International Conference on Current Developments in Mathematics and Mathematical Sciences (ICCDMMMS-2014)**, organized by **Calcutta Mathematical Society** during December 19-21, 2014.
14. R. Das, **R. K. Jana**, M. Maiti, “Inventory Models with two similar substitutable products on the basis of stock based demand” published in the proceeding of **International Conference on Optimization, Computing and Business Analysis for Sustainable Development (ICOCBASD-2015)** at **Central University of Rajasthan, Ajmer, India** during February 20-22, 2015. (Paper presented by R. Das)
15. R. Das, **R. K. Jana**, M. Maiti, “Prices and order quantities of substitutable products in EPQ Model” published in the proceeding of **2nd International Conference on Recent Trends in Mathematics and Its Applications (ICRTMA)** at **Vidyasagar University, Midnapore** during March 18-19, 2015. (Paper presented by R. Das)
- *16. **R. K. Jana**, “Recent Developments in the study of Generalized Mittag-Leffler function” published in the proceeding of **Joint Meeting of American Mathematical Society (AMS), European Mathematical Society (EMS) and Portuguese Mathematical Society (SPM)** at **Porto, Portugal** during June 10-13, 2015.
- *17. B. Maheshwari and **R. K. Jana** "Extension of Wright type hypergeometric function", at **The Real World is Complex - an international symposium in honor of Christian Berg at Copenhagen, Denmark** during August 26-28, 2015. (Paper presented by B. Maheshwari)
18. **R. K. Jana**, “On the study of Bessel function Series” in the proceeding of **International Conference on Special Functions and Their Applications (ICSFA 2015)** held at Amity University, Noida during September 10-12, 2015.
- *19. J. P. Chauhan, **R. K. Jana** and A K Shukla, “Spread of Technological Innovations using Fractional Ordered Differential Equation Model”, International Conference on Applied Physics and Mathematics (ICAPM-2016), held at Bangkok, Thailand during August 21-22, 2016. (Paper presented by J. P. Chauhan)
20. **R. K. Jana**, “A study on q -Hermite polynomials and their applications” at International Conference on Special Functions and Their Applications (ICSFA 2016) held at Jamia Millia Islamia, New Delhi during September 09-11, 2016.
21. H. S. Lekhadiya and **R. K. Jana**, “Assimilation of INSAT-3D satellite derived Temperature and Humidity profiles in WRF model” at 19th International Conference of International Academy of Physical Sciences (CONIAPS XIX) held at Nainital, India during October 17-19, 2016. (Paper presented by H. S. Lekhadiya)
22. **R. K. Jana**, “On some properties of Extended Wright type hypergeometric function”, at **International Conference on Mathematical Analysis and its Applications (ICMAA-2016)** held at IIT Roorkee during November 28 - December 02, 2016.

* **Papers presented at abroad**

National Conference Proceedings / presentations (11)

1. “Geophysical Fluid Dynamics in the light of Mathematical Techniques and Computation”, published in the proceeding of National conference **Emerging Trends in Mechanical Engineering (ETME 07)** held at SVNIT, Surat during June 4-5, 2007.
2. “Some light on Geophysical Parameter Retrieval and comparison of UTH (Upper Tropospheric Humidity) from INSAT-3A and KALPANA data”, published in the proceeding of **National Seminar on Applied and Computational Mathematics and their Applications** (Sponsored by UGC) held at Vidyasagar University, Midnapore during March 6-7, 2008.

3. "Note on Laguerre Transform in Two variables" with I A Salehbhai and A K Shukla, published in the proceeding of **75th Annual Conference of Indian Mathematical Society** held at Kalasalingam University during December 27-30, 2009. (paper presented by I A Salehbhai)
4. "Integral Transforms of General Class of Polynomials" with J C Prajapati and A K Shukla, published in the proceeding of **Ninth Annual Conference of Society for Special Functions & their Applications** held at School of Mathematics & Allied Sciences, Jiwaji University, Gwalior during June 21-23, 2010.
5. "Some results of Generalized Mittag-Leffler Function" with P V Shah and A D Patel, published in the proceeding of **76th Annual Conference of Indian Mathematical Society** held at SVNIT during December 27-30, 2010.
6. "On -type zero polynomials" with S J Rapeli and A K Shukla, published in the proceeding of **77th Annual Conference of Indian Mathematical Society** held at School of Mathematical Sciences, SRTM University, Nanded during December 27-30, 2011.
7. "Integrals involving Generalized Bessel Functions" with I A Salehbhai and A K Shukla, published in the proceeding of **National Conference on Analysis and Applications** held at Department of Mathematics, NIT Srinagar, Jammu and Kashmir during November 19-20, 2012. (paper presented by I A Salehbhai)
8. "Sheffer polynomials and their q-analogue" with S. J. Rapeli and A. K. Shukla published in the proceeding of National Seminar "**NSAM 2013**", organized by Calcutta Mathematical Society during September 6-8, 2013 at Kolkata.
9. "Some Properties of Wright type Generalized Hypergeometric Function via Fractional Calculus" presented at **80th Annual Conference of Indian Mathematical Society**, held at Indian School of Mines, Dhanbad during December 27-30, 2014.
10. **R. K. Jana**, "Modeling Epidemics using Fractional Calculus" at **UGC sponsored National Seminar on "Recent Trends in Biomathematical Modeling under uncertain Environment"** at Mugberia Gangadhar Mahavidyalaya, West Bengal during September 11-12, 2015.
11. "A note on Sheffer Polynomials" presented at **81st Annual Conference of Indian Mathematical Society**, held at VNIT, Nagpur during December 27-30, 2015.

Book (01)

Proceeding of the Eleventh Annual Conference of Society of Special Functions and Their Applications (SSFA) held at SVNIT, Surat, edited by A. K. Agarwal, M. A. Pathan, S. Khan, A. K. Shukla and R. K. Jana.