

BIJU KUMAR DUTTA

Assistant Professor,
Department of Mathematics,
Kaziranga University,
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Education

Ph.D. Mathematics, NERIST, Arunachal Pradesh, 2014.
M.Sc. Mathematics, Gauhati University, Guwahati, 2003.
B.Sc. Mathematics(H), Cotton College, Gauhati University, Guwahati, 2001.

Certifications

PGDCA (1 year), Cotton College, Gauhati University, Guwahati, 2006.
Certificate Course in French Language (1 year), Gauhati University, Guwahati, 2006.
Computer Hardware, Assembling & Maintenance (6 month), Assam Engineering Institute, Chandmari, Guwahati, 2004.

Research Interests

Special Functions, Fractional Calculus, Fractional Differential Equations, Stability Theory.

Publications

U.K. Saha, L.K. Arora and **B.K. Dutta**, "On the fractional differintegration of some special functions of fractional calculus and related functions". *International Journal of Mathematics and Computer Science*, 6(2), 2010, 65-69.

U.K. Saha, L.K. Arora and **B.K. Dutta**, "Integrals involving I -function", *General Mathematics Notes*, 6(1), 2011, 1-14.

B.K. Dutta, L.K. Arora and U.K. Saha, "On generalized fractional integral operators and the multivariable H -function", *Advances in Theoretical and Applied Mathematics*, 6(4), 2011, 423-434.

B.K. Dutta, L.K. Arora and J. Borah, "On the solution of fractional kinetic equation", *General Mathematics Notes*, 6(1), 2011, 40-48.

B.K. Dutta and L.K. Arora, "Multiple Mellin and Laplace transforms of I -functions of r variables", *Journal of Fractional Calculus and Applications*, 1, 2011, 1-8.

B.K. Dutta and L.K. Arora, "Some multiple integral transforms of multidimensional polynomial and I -function", *Thai Journal of Mathematics*, 10(2), 2012, 351-362.

B.K. Dutta and L.K. Arora, "Approximate solution of inhomogeneous fractional differential equation", *Advances in Nonlinear Analysis*, 1(4), 2012, 335–353. [doi:10.1515/anona-2012-0011].

B.K. Dutta and L.K. Arora, "On Hyers-Ulam stability for fractional differential equation of Caputo derivative", *Journal of Rajasthan Academy of Physical Sciences*, 11(4), 2012, 397–404.

B.K. Dutta and L.K. Arora, "On the existence and uniqueness of solutions of a class of initial value problems of fractional order", *Mathematical Sciences*, 7(1), 2013, 12p. [doi:10.1186/2251-7456-7-17]

B.K. Dutta and L.K. Arora, "Hyers-Ulam stability of a class of nonlinear fractional differential equation", *Review of Calcutta Mathematical Society*, 21(1), 2013, 95–102.

U.K. Saha, **B.K. Dutta** and L.K. Arora, "Approximate analytical solutions to fractional integro-differential equations", *International Journal on Current Science & Technology*, 1(2), 2013, 227–233.

T.J. Neog and **B.K. Dutta** "On some new operations of fuzzy soft sets", *International Journal of Mathematical Archive*, 9(1), 2018, 184–190.

B.K. Dutta and L.K. Arora "Generalized Taylor's like formula for Caputo-type fractional derivative", (Under review).

B.K. Dutta, "A note on the Caputo-type fractional differential equations", (Under review).

Seminars/ Workshops/ Conferences organized

Organizing Secretary of the one day workshop on "Fundamental Mathematics" held at Kaziranga University, Jorhat during February 14, 2018.

Courses / Conferences / Workshop attended

2nd National Conference for Teachers organized by Don Bosco Institute, Guwahati. May 19–21, 2009.

75th Annual Conference of the Indian Mathematical Science (IMS) Dec. 27–30, 2009.

21st National Conference of Rajasthan Ganita Parishad, on Recent Trends in Mathematics and Actuarial Sciences. Feb. 20–21, 2010.

National Workshop on use of Open Source Software for teaching Mathematics, Bhaskaracharya Pratishthana, Pune, July 26–30, 2010.

International Conference on Special Function and Their Applications and Symposium on Work of Ramanujan (ICSFA-2011), J. N. Vyas University, Jodhpur, Rajasthan, July 28–30, 2011.

2nd One-Day INDEST User Convention (E-Journals & E-Resources Awareness Training) organized by the Indian National Digital Library in Engineering Sciences and Technology (INDEST) user committee, NERIST, Arunachal Pradesh, Sept. 10, 2011.

DAAD Network International Workshop on Modeling, Computing and Optimization, Department of Mathematics, IIT Madras, Sept. 3–12, 2012.

International Conference on Frontiers of Mathematical Sciences with Applications (ICFMSA-2012), Calcutta Mathematical Society, Kolkata, West Bengal, Dec. 07–09, 2012.

National Workshop on Emerging Trends in Ramanujan's Mathematics & its applications in the field of q -Hypergeometric series, National Academy of Sciences India, Allahabad Chapter, Allahabad, Uttar Pradesh, Dec. 22–24, 2012.

Instructional School for Lecturer(ISL) in Numerical Analysis, Department of Mathematics, Panjab University, Chandigarh, June, 9–28, 2014.

Faculty Development Workshop on Human Values and Professional Ethics, Kaziranga University, Jorhat, Assam, September 10, 2014.

RMS-NCM Teachers' Enrichment Workshop(TEW) on Complex Analysis and Topology, supported by ARSI Foundation and organised by Kalna College, Barddhaman Bhavan, Burdwan, West Bengal, December 23–27, 2014.

National Course on Mathematics Technical: Pedagogy and Practice, under Technical Education Quality Improvement Programme (TEQIP) sponsored by MHRD, India and organised by IIT, Guwahati, February 20–22, 2015.

SERB School on Matrix Methods and Fractional Calculus, sponsored by Department of Science and Technology (DST), India and organised by Center for Mathematical and Statistical Sciences, Peechi Campus, Kerala, June 15–July 10, 2015.

School on Analysis and Topology, sponsored and organized by the Indian Statistical Institute, North-East Centre and Tezpur University, February 22–March 4, 2016.

Instructional School for Lecturer(ISL) in Linear Algebra & Multivariable Calculus, Department of Mathematics, Dibrugarh University, Dibrugarh, Assam, December, 18–30, 2017.

Workshop on Fundamental Mathematics, organized and sponsored by Department of Mathematics, The Assam Kaziranga University, Jorhat, Assam, February 12, 2018.

Refresher Course on "Analysis", organized by Department of Mathematics, Tezpur University, Assam, during February 18 to March 02, 2019, sponsored by sponsored by Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi, The National Academy of Sciences India, Allahabad.

Talks/ Paper Presented

B.K. Dutta and L.K. Arora, "On existence and uniqueness solutions of a class of fractional differential equation", International Conference on Special Functions and their Applications(ICSFSA), Jodhpur, July 28–30, 2011.

B.K. Dutta and L.K. Arora, "Hyers-Ulam stability of a class of nonlinear fractional differential equation", International Conference on Frontiers of Mathematical Sciences with Applications(ICFMSA), Kolkata, Dec. 7–9, 2012.

Working Experience

Gap Lecture, Sonapur College, Aug. 2006 to Aug. 2007.

Duties included: lecture (2-3 hours/day); office hours; midterm exam and final exam.

PGT, Army School, Basistha, Nov. 2008 to July 2009.

Duties included: lecture (4 hour/day); office hours; grade quizzes, assignments, midterm exam, and final exam.

Guest Lecturer in the Dept. of Mathematics, NERIST, Nirjuli, Arunachal Pradesh, July-Dec., 2009; Jan.-May, 2010; July-Dec., 2010; July-Dec., 2011, July-Dec., 2012.

Duties included: lecture (16 hour/week); office hours; assignments, Numerical practical Lab., midterm exam, and end term exam.

Assistant Professor in the Dept. of Mathematics, School of Basic Sciences, Kaziranga University, Jorhat, Assam; Sept., 2013 to till date.

Duties included: lecture (16 hour/week); class hours; assignments, midterm exam, and end term exam.

Industrial/ Research Experience

Indian Institutes of Technology, Guwahati.

Computer Trainee, Aug. 2007 to Aug. 2008.

North Eastern Regional Institute of Science and Technology, Nirjuli.

Research Scholar, July. 2009 to June 2013.

Computer Skill

Experience with GNU/ Linux system administration and development.

Fluent in C, Scilab, Fortran and HTML. Some experience with SQL, MATLAB, Octave, SAGE.

Familiar with GeoGebra and \LaTeX .

Membership of Associations

Society for Special Functions & their Applications.

Forum for Advanced Training in Education and Research Academy of India (FAI).

Non-academic interests

history and philosophy of math and science

tinkering with Linux, \LaTeX , and other computery things

Achievement/ Awards

Second Prize winner of Scopus Quiz, initiated by Elsevier in Northeast Region University, 2012.

First prize in Cricket during Kaziranga University Annual Fest, 2015.

References

Prof. Laxmi Kanta Arora, Department of Mathematics, North Eastern Regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh 791109. email: lkarora@yahoo.com.

Dr. Bhupen Deka, Associate Professor, Department of Mathematics, Indian Institute of Technology Guwahati-781039. email: bdeka@iitg.ac.in.

Permanent Address

C.O. Mr. Dilip Kumar Dutta, Near Temple Town Euro School, Junaki Nagar, Rupohi Pothar, PO-Dhuliapar, Sivasagar-785640.