Faculty Details

Title	Dr.	First Name	RIMPI	Last Name	PAL KUNDU	Photograph
Designation	ASSISTANT PROFESSOR					
Address	A-14/10, SHYAM VIHAR, PHASE-II, NAJAFGARH, NEW DELHI-110043					
Phone No Office						
Residence*						
Mobile*	9313499979					
Email	rimpipal.kundu@gargi.du.ac.in					
Web-Page						

Educational Qualifications

Degree	Institution	Year
JRF(NET)-CSIR	CSIR (MATHEMATICAL SCIENCE)	2006, 2009
PhD	UNIVERSITY OF DELHI	2016
MSc (APPLIED MATHEMATICS)	UNIVERSITY COLLEGE OF SCIENCE, TECHNOLOGY AND AGRICULTURE (UNIVERSITY OF CALCUTTA)	2006
BSc (MATHS HONOURS)	SCOTTISH CHURCH COLLEGE, UNIVERSITY OF CALCUTTA	2004
XII	THE ARMY PUBLIC SCHOOL, DHAULA KUAN	2001
X	THE ARMY PUBLIC SCHOOL, DHAULA KUAN	1999

Career Profile

#1
Period: 19 Aug 2021 till now
Organization: GARGI COLLEGE, Siri Fort Road, University of Delhi,
Designation: Assistant Professor (AD-HOC) in the Department of *Mathematics*

#2
Period: 04 Feb 2020 - 18 Aug 2021
                             Even Semester (2019-2020), Odd Semester (2020-2021), Even Semester (2020-2021) till now
Organization: Atma Ram Sanatan Dharma College, University of Delhi, Dhaula Kuan
Designation: Assistant Professor (Guest) in the Department of *Mathematics*

#3
Period: 08/2019 till 12/2019 (Odd Semester(2019)
Organization: Netaji Subhash University of Technology, Dwarka, Sec-3
Designation: Guest Lecturer in the Department of *Mathematics*
                             Responsible for teaching 1st semester and 7th semester students.

#4
Period: **07/2013- 09/2013**
Organization: **Rajdhani College, University of Delhi**
Designation: **Assistant Professor (AD-HOC) in the Department of *Mathematics***
Responsible for teaching 1st semester and 5th semester students

#5
Period: **Even Semester (2011), Odd Semester(2012)**
Institution: **Netaji Subhash University of Technology, Dwarka, Sec-3**
Designation: **Guest Lecturer in the Department of *Mathematics***
Responsible for teaching 1st semester students.

#6
Period: 16/07/2007 – 21/04/2009
Institution: Scottish Church College
1 & 3, Urquhart Square,
University of Calcutta, Kolkata, West Bengal
Designation: **PERMANENT Assistant Professor**
Responsible for teaching 1st, 2nd and 3rd years Honours and Pass students.

Administrative Assignments

Areas of Interest / Specialization

Non-linear Dynamical systems, Celestial Mechanics, Chaos Synchronization, Control theory, Secure Communications

Subjects Taught

- Linear Algebra
- Real Analysis
- Abstract Algebra
- Differential Equations (Ordinary and Partial)
- Integral Calculus
- Differential Calculus
- Rigid Dynamics
- Statics
- Probability and Statistics
- Linear Programming Problems
- C++, R, Latex, Mathematica

Research Guidance

Recent Publications

- Analysis of tumor-immune response model by using conformable fractional order derivative, Ausif Padder, Rimpi Pal, Afroz and Ayub Khan, **South East Asian J. of Mathematics and Mathematical Sciences**, Vol. 18, No. 3 (2022), pp. 393-414
- Backstepping projective synchronization and adaptive function projective synchronization of identical chaotic systems with application, Rimpi Pal, Anuj Kumar, communicated to **Transactions of the Institute of Measurement and Control**.
- Generalized Robust Active Sliding Mode Synchronization of Identical Chaotic Systems Under Periodic External Disturbances, Ayub Khan, Rimpi Pal, **Journal of Applied Physical Science International**, 2(4) (2015)125-136.
- Adaptive Hybrid Function Projective Synchronization of Chaotic Space-Tether-System, Ayub Khan, Rimpi Pal, **Nonlinear Dynamics and Systems Theory** 14 (1) (2014) 44-57.
- Complete Synchronization, Anti-Synchronization and Hybrid Synchronization of Two Identical Parabolic Restricted Three Body Problem, Ayub Khan, Rimpi Pal, **Asian Journal of Current Engineering and Maths2**(2)(2013) 118 - 126.
- Synchronization of Two Identical Restricted Planar Isosceles Three-Body-Problem and a Study on Possible Chaos Control, Ayub Khan, Rimpi Pal, **Discontinuity, Nonlinearity, and Complexity** 2(2) (2013) 183-201.
- Modelling of phytoplankton allelopathy with Monod-Haldane-type functional response-A mathematical study, Rimpi Pal, Debanjana Basu, M. Banerjee, **BioSystems** 95 (2009) 243-253. (ISSN: 0303-2647).
- Deterministic and Stochastic analysis of a delayed allelopathic phytoplankton model within fluctuating environment, Malay Bandyopadhyay, Tapan Saha, Rimpi Pal, **Nonlinear Analysis: Hybrid Systems** 2 (2008) 958-970. (ISSN: 1751-570X).

  (COMMUNICATED AND UNDER REVIEW)
- Backstepping projective synchronization scheme and adaptive function projective synchronization scheme on chaotic Dumbell satellite model: a comparative study, **Ayub Khan , Rimpi Pal , Anuj and Shivani**.
- Secure communication through function-synchronization of time-delayed uncertain Genesio-lorenz systems, **Ayub Khan and Rimpi Pal.**
- Adaptive function synchronization based secure communications of modified time- delayed Chen – lee Systems, **Rimpi Pal; Shivani Gahlout; Anuj Kumar.**

BOOK CHAPTER

Adaptive Hybrid Function Projective Synchronization of Chaotic Space-Tether-System, "**Advances in Stability and Control Theory for Uncertain Dynamical Systems**"**, VOL.11** (Stability, Oscillations and Optimization of Systems) **Cambridge Scientific Publishers (UK), ISBN: 978-1-908106-73-5,** Chapter 11, Adaptive Hybrid Function Projective Synchronization of Chaotic Space-Tether System**, Ayub Khan, Rimpi Pal, 2021**

Conference Organization/ Presentations

- Paper presentation entitled "Hybrid projective function synchronization of time-delayed Genesio and lorenz systems with applications to secure communication ", in the **INTERNATIONAL CONFERENCE ON DYNAMICAL SYSTEMS, CONTROL AND THEIR APPLICATIONS**, held at Department of Mathematics, IIT ROORKEE, during July 1-3, 2022.
- Paper presentation entitled " Synchronization of two identical restricted planar isosceles three body problem and a detailed study on possible Chaos Control ", in the **National Seminar for Research Scholars**, held at Department of Mathematics, University of Delhi, during March 24-25, 2012.
- Paper presentation entitled " Projective Synchronization and Function Projective Synchronization of a Dumbell Satellite under Solar Radiation Pressure and other factors " in **International Conference on Frontiers of Mathematical Sciences with Applications-2012**, held in Kolkata, West Bengal.

Research Projects (Major Grants/Research Collaboration)

Awards and Distinctions

- Received **Gold Medal (Pravat Kr. Ghosh Gold Medal for Department topper)** and **Certificate of Merit** in B.Sc. Mathematics Honours Examination in 2004 from Scottish Church College, University of Calcutta.
- **Ranked 4th** in University of Calcutta in B.Sc. Mathematics Honours Examination in 2004 **(Among all the affiliated colleges of University of Calcutta in West Bengal)**.
- **Ranked 2nd** in University of Calcutta in M Sc Applied Mathematics Examination in 2006.
- Awarded **JUNIOR RESEARCH FELLOWSHIP** from C.S.I.R. for pursuing Ph.D. in Mathematics in Department of Mathematics, University of Delhi on 11.11.2010 under File no.: 09/045(1033)/2010-EMR-I.

- **SENIOR DIPLOMA with DISTINCTION in HINDUSTANI CLASSICAL VOCAL from PRAYAG SANGEET SAMITI, ALLAHBAD.**

Other Activities

REVIEWER OF THE JOURNAL

International Journal of Control, Automation and Systems, Springer. ISSN: 2005-4092, 1598-6446