




Title	Dr.	First Name	Sada Nand	Last Name	Prasad	Photograph
Designation		Associate Professor				
Address		Acharya Narendra Dev College, (University of Delhi) Govindpuri, Kalkaji, Delhi-110019				
Residence		M-306, Ayush Enclave, Block - M, Pkt – C, DDA LIG Flats, Molarband, Sarita Vihar, New Delhi-110076				
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Email		sadanandprasad@andc.du.ac.in prasadsadanand@yahoo.co.in				
Web-Page		https://sites.google.com/view/sadanandweb/home				
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Department of Mathematics, University of Delhi			2013	
M.Phil.		Department of Mathematics, University of Delhi			2007	
PG		Zakir Husain Delhi College, University of Delhi			2004	
Career Profile						
November 7, 2006 to till date - Assistant Professor, Dept. of Mathematics, Acharya Narendra Dev College (University of Delhi).						
Administrative Assignments						
<ol style="list-style-type: none">1. Worked as NSS Convener, from July 2010 to June 2014.2. Worked as Nodal Officer of Anti-Tobacco Squad3. Member, Proctorial Committee 2010-2012, 2014-20164. Member, Internal Assessment & Monitoring Committee 2010-20125. Member, Environment Society & Remedial Coaching 2010-20126. Member, Sports Committee 2008-2010 to 2012-20147. Member, Admission Committee & Library Committee 2016-20188. Worked as Convener of Cultural Events Management Committee from July 2014 to May 2016						

- 9. Teacher in Charge of Department of Mathematics from April 2016 to March 2018
- 10. Member of Sports committee and Canteen committee from April 2018 till date
- 11. SC/ST Observer (alternate) from 01.05.2018 to 30.04.2020
- 12. SC/ST Observer from 01.05.2020 till date

Areas of Interest / Specialization

- 1. Dynamical Systems
- 2. Space Dynamics
- 3. Non Linear Dynamics

Subjects Taught

- 1. Calculus
- 2. Differential Equations and Mathematical Modeling
- 3. Partial Differential Equation
- 4. Real Analysis
- 5. Numerical Analysis
- 6. Linear Programming
- 7. Algebra and Mechanics

Publications Profile

Chapters for Developing E-Content

- ❖ Mathematical Models (ISSN 2349-154X)
- ❖ Classification of Second Order Linear Equations (ISSN 2349-154X). Both the above for Differential Equation and Mathematical Modeling
- ❖ Reduction Formulae (ISSN 2349-154X)
- ❖ Concavity, Points of Inflexion, Curve Sketching (ISSN 2349-154X). Both the above for Calculus
- ❖ Differential Equations of first order but not of first degree, Clairaut's Equations and singular solutions, Envelops and Orthogonal trajectories, Existence and Uniqueness of Solutions of first order differential equations(Differential Equation) (ISSN 2349-154X)
- ❖ Numerical Solution of Ordinary Differential Equations – Numerical Methods (ISSN 2349-154X)

List of Research Papers Published in the International Journals

1. Measuring Chaos: Topological Entropy and Correlation Dimension in Discrete Maps

L. M. Saha, Sadanand Prasad and Manabu Yuasa
Science and Technology, Vol. 24, 2012, pg.11 - 23, JAPAN (ISSN: 0916-2054)

2. Correlation Dimension and Topological Entropy in Discrete Maps

L. M. Saha, Sadanand Prasad and R. K. Mohanty

Applied Mathematical Sciences, Journal of Hikari, Vol. 6, 2012, no. 84, 4197 – 4209, BULGARIA, ISSN: 1314-7552 (online), 1312-885X (print)(0.43)

3. Interesting Dynamic Behavior in Some Discrete Maps

L. M. Saha, Sadanand Prasad and G. H. Erjaee
Iranian Journal of Science & Technology, Vol. A3(Special issue-Mathematics), 2012, Pg. 383-389 ISSN: 1028-6276 (print), 2364-1819 (electronic)

4. Dynamic Behavior of Generalized Invertible Henon Map

L. M. Saha, Sadanand Prasad and R. K. Mohanty
Int. J. of Appl. Math and Mech. **9** (18): 28-37, 2013 (ISSN: 0973-0184)

5. Chaos Measure in Some Discrete Maps

L. M. Saha and Sadanand Prasad
Rev. Bull. Cal. Math. Soc. **20** (2): 113-120, 2012.(ISSN: 0008-0659)

6. Circular Restricted three-body problem when both the primaries are heterogeneous spheroid of three layer and infinitesimal body varies its mass

Abdullah A. Ansari, Ziyad Ali AlHussain and SadaNand Prasad
J. Astrophys. Astr. 39:57,2018, ISSN: 0250-6335 (print) 0973-7758 (web)
(vol 39 (5), Pg: 57(1-20))

7. Complexity Dynamics of Invertible Henon Map

L. M. Saha, Sadanand Prasad
Indian Journal of Industrial and Applied Mathematics, Vol. **9**, No. **1**, **54-59**, **2018**
ISSN: **1945-919X**(Web), **0973-4317**(Print)

8. Synchronization of fractal order Rabinovich-Fabrikant systems using sliding mode control techniques

Sanjay Kumar, Chaman Singh, SadaNand Prasad, Chandra Shekhar and Rajiv Aggarwal
Archives of Control Sciences, Vol. **29**(LXV) No. **2**, **307-322**, **2019**
(ISSN: **1230-2384**, **2300-2611**)

9. Variable mass of a test particle in Copenhagen problem with Manev-type potential

Abdullah A. Ansari, Sada Nand Prasad, Mehtab Alam

Research and Review: Journal of Physics, Vol. 9(1), Pg. 17- 27, March 2020.
(ISSN: 2278 - 2265)

10. Complexity Dynamics of Gumowski-Mira Map,

Sada Nand Prasad, K. R.Meena, Abdullah A. Ansari

Applications and Applied Mathematics: An International Journal (AAM), Vol. 15, Issue1 (June 2020), pp. 273 – 281. (ISSN: 1932-9466)

11. Chaos Measure in Autonomous LPA Model,

Sada Nand Prasad, L. M. Saha, Abdullah A. Ansari

Gedrag & Organisatie Review, Vol. 33, Issue 02 (June 2020), pp. 2687 – 2694.
(ISSN: 0921-5077)

12. "The motion properties of the variable mass planetoid in the elliptical Sitnikov problem", Abdullah A. Ansari, Ph.D.; Laxmi Narain, Ph.D.; Sada Nand Prasad, Ph.D.

Gedrag & Organisatie Review, Vol. 33, Issue 03 (July 2020), pp. 398 – 404.
(ISSN: 0921-5077)

13. "Generalized elliptic restricted four-body problem with variable mass",

Abdullah A. Ansari, Sada Nand Prasad

"Astronomy Letters" Vol. 6, Issue 4, September 2020,pg: 275- 288, Russia
ISSN: 1562-6873(Web), 1063-7737 (Print)

14. "Perturbed six-body configuration with variable mass"

Abdullah A. Ansari, Ph.D.; K. R. Meena, Ph.D.; Sada Nand Prasad, Ph.D.

Romanian Astronomical Journal, Vol. 30(2), October 2020, pg. 135-152.
(ISSN:2285-3758, 1220-5168)

15. "Vertical Motion of the Variable Infinitesimal Mass in the Circular Sitnikov Problem"

Abdullah A. Ansari, Ph.D.; Sada Nand Prasad, Ph.D, Chaman Singh, Ph.D;

AAM journal, Vol. 15(2), December 2020, pg. 1396-1406. (ISSN: 1932-9466)

16. Behaviour of motion of infinitesimal variable mass oblate body in the generalized perturbed circular restricted three-body problem

Abdullah A. Ansari, SadaNand Prasad, Mehtab Alam, Laxmi Narain

Accepted for publication in the Italian journal of pure and applied Mathematics, 2020. (ISSN: 0019 - 5324)

17. Measuring Complexity and Chaos in Three - Species Food Chain system with the Beddington-DeAngelis Functional Response, Sada Nand Prasad,

L. M. Saha and Abdullah A. Ansari

Under review in the Indian journal of Mathematics, 2020. (ISSN: 0019 - 5324)

Conference / Presentations / Workshops

- (1) National Seminar on “Changing Face of Higher Education in India” organized by Desh Bandhu college on **March 04, 2009**.
- (2) International conference on “Recent trends in Mathematics and its application (ICRTMA - 09)” organized by Department of Mathematics, Jamia Milia Islamia, New Delhi From **March 30, 2009 to March 31, 2009**.
- (3) Workshop cum Training Programme on “Modern Trends in Celestial Mechanics and Astronomy” organized by Desh Bandhu college From **March 17, 2010 to March 19, 2010**.
- (4) Workshop on application of Free/Open-Source Software in Science Teaching and Research organized by Acharya Narendra Dev College from **April 14, 2010 to April 15, 2010**.
- (5) 3rd National Seminar on “Recent trends in Advancement of Mathematical and Physical Sciences” organized by D.N. College Meerut From **Feb.05, 2011 to Feb. 06, 2011**.
- (6) Workshop on Scilab and its applications organized by Acharya Narendra Dev College from **March 10, 2011 to March 11, 2011**.
- (7) International Satellite Seminar on “Role of Mathematics in Science and Engineering (ISSRMSE-11)” organized by Graphic Era University, Dehradun From **May 13, 2011 to May 14, 2011**.
- (8) National Seminar on “**Recent trends in Advancement of Mathematical and Physical Sciences**” organized by D. N. College Meerut From **March.17, 2012 to March 18, 2012** and **presented** a paper entitled **Dynamic Behaviour in Some Discrete Maps**.
- (9) Workshop on “**Free / Open-Source Software Maxima**” organized by Acharya Narendra Dev College on **August 17, 2012**.
- (10) Delivered an *invited talk and conducted hands on session* in the workshop on Software “**Mathematica**” organized by Acharya Narendra Dev College on **March 01, 2013**.
- (11) National Seminar on “**Modelling and its applications in Science and Technology**” organized by IIMT Engineering College, Meerut From **March 22, 2013 to March 23, 2013** and **presented** a paper entitled **Dynamic Behaviour in Certain Discrete Maps**.

- (12) Participated in the seminar on “Recent Trends in Technical Terminology in Science” organized by Commission for Scientific and Technical Terminology at Sri Aurobindo College, University of Delhi From February 16, 2016 to February 17, 2016.
- (13) National conference on “**Advances in Operations Research and Mathematical Science (AORMS-2018)**” organized by Department of Research & Post Graduate Studies in Mathematics & Department of Statistics, Vardhaman College, Bijnor, U.P. in association with Operational Research Society of India (ORSI), Meerut Chapter from **Feb. 24, 2018 to Feb. 25, 2018** and **presented** a paper entitled **Manufacturer based Supply Chain Inventory Model with Ramp Type Demand under Inflation.**
- (14) National Workshop on “Advanced Numerical techniques and its applications” organized by Graphic Era Hill University, Dehradun From May 06, 2019 to May 11, 2019.
- (15) National Conference on “Emerging Trends in Mathematical Sciences for Industry and Environment: Use of Technical Hindi Terminology” organized by **Commission for Scientific and Technical Terminology at Shaheed Bhagat Singh College**, University of Delhi From **January 27, 2020 to January 29, 2020** and **presented** a paper entitled **Complexity Measure in Modified Henon Map.**
- (16) Webinar-03: ICT Enabled Higher Education in India: Challenges and Opportunities" organized by GAD Teaching Learning Center and PMMMMNMTT Scheme of MHRD on 15 April 2020.
- (17) International e- conference on “**Recent trends in Advancement of Mathematical and Physical Sciences**” organized by D. N. College Meerut From **May 22, 2020 to May 23, 2020.**
- (18) Webinar on “Occupied Territories of Ladakh.” organised by the Academic Affairs Committee, Shaheed Bhagat Singh Evening College on 18th May, 2020.
- (19) One Day International Webinar on “MATLAB Applications in Sciences and Engineering”, organized by Baba Farid College, Bathinda, Punjab on 29th May, 2020.
- (20) National Webinar on the topic “Application of Mathematical Modeling and Statistical Learning on COVID-19 and its Related Problems”, organized by the Department of Mathematics and Department of Statistics, Bareilly College, Bareilly on **June 07, 2020 (Sunday)**
- (21) National Webinar on the topic “Financial Mathematics: Pedagogy and Career Perspectives”, organized by the Department of Mathematics Lady Shri Ram College For Women, from **July 27, 2020 to July 31, 2020.**
- (22) Delivered a talk on “Chaos in Dynamical Systems” in the national webinar on March 20, 2021 organised by Department of Mathematics, Bishop Kuriyalacherry College for women, Kerala as a resource person.

(23) Participated in the Teacher's Enrichment Workshop (TEW) on Differential Equations and its applications organized by National Centre for Mathematics at Deshbandhu College, University of Delhi from March 15- 28, 2021(Online Mode)

Research Guidance and Research Projects (Major Grants/Research Collaboration):

Ph.D. student

- **Bhawna Singh, Core Area: Non-linear stability in the restricted three-body problem with various perturbation (Registered 2021, University of Delhi)**

M. Phil. Student

- **Pooja Khoda, Core Area: Dynamical Systems (Registered 2021, University of Delhi)**
- Co-supervisor of Ms. Gunjan Goyal in M.Sc. Applied Mathematics, Amity University. She has submitted her dissertation entitled "**CHAOS MEASURE IN ECOLOGICAL MODELS**" on 30 May 2016.
- Guiding the ELITE project on "**Detection and measuring chaos in non-linear dynamical systems**" at Acharya Narendra Dev College, University of Delhi.

Research Project:

Development of portable Electronic Nose prototype with autonomous & stand-alone operation for quantified Ambient Air Pollution (AAP) measurement using wireless data transfer protocol on Android® enabled mobile phones (DU INNOVATION PROJECT ANDC 304)

Association with Professional Bodies

Life time member of Operational Research Society of India.

Other Activities

1. Worked as an Observer in UGC-NET Examination December 2012 conducted by UGC.
2. Observer in IGNOU term end examination in June 2019.
3. Summer Institutes, refresher or orientation courses attended
 - Orientation Programme (**OR-60**) organized by **CPDHE** University of Delhi From **June 09, 2009 to July 06, 2009.**
 - Refresher Course (**RC-238**) Mathematics and statistics organized by **ASC H.P. University Shimla** from **July 18, 2011 to August 6, 2011.**
 - Refresher Course (SRC) Mathematics /Operational Research /Statistics and Computer Science organized by **CPDHE** University of Delhi From May 31, 2019 to June14, 2019.
 - FDP on Recent Trends in Research Methodology, E-content, Mathematical and Statistical Methods in Open Education World organized by **Kalindi College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre** from **Dec 17,2019 to Dec 23,2019.**
 - FDP on "Managing Online Classes and Co-Creating MOOCs" organized by **Ramanujan College, University of Delhi** from **April 20,2020 to May 06,2020.**