




DYAL SINGH COLLEGE, UNIVERSITY OF DELHI
FACULTY DETAIL



Title	Dr.	First Name	AJAY	Last Name	MISHRA	Photograph
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Residence						
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Educational Qualifications						
Degree	Institution		Year			
B.Sc(Hons) Physics	Dyal Singh College, DU		2005			
M.Sc Physics	Ramjas College, DU		2008			
Ph.D Physics	Department of Physics and Astrophysics, DU		2014			
Career Profile						
Working as an Assistant Professor DyalSingh College, DU.						
Administrative Assignments (From 1 st July 2017 onwards)						
<ul style="list-style-type: none">• Functioned as Resource Person in DU Entrance Pre-Entrance Summer School 2018 (01-06-2018 to 16-06-2018) Conducted by Institute of Lifelong Learning, DU.• Subject Working Group Member of LOCF(CBCS) Undergraduate Physics courses revision 2019 of DU.• Member of admission committee of the Physics department (2019-20)• Member of Energy Audit Committee 2021-2022, Alumni and Time Table Committee of Department of Physics 2021-2022.• Member of Board of Paper Setting(2020-2021, 2021-2022)						
Areas of Interest / Specialization						
<ul style="list-style-type: none">• Nonlinear Dynamics• Numerical Analysis						
Subjects Taught						
<ul style="list-style-type: none">• Advanced Mathematical Physics 2• Advanced Mathematical Physics 1• Mathematical Physics 2• Advanced Mathematical Physics 1 Lab• Mathematical Physics 2 Lab• Numerical Analysis						

- **Computational Physics (Python , LATEX, Scilab, Gnuplot)**

Research Guidance

- **Project - Arpit Singh, on the topic “Understanding Non – Linear systems and Controlling Chaos” Under the aegis of IQAC, Dyal Singh College, University of Delhi.**

Publications Profile

1) Exact solutions of variable coefficient nonlinear diffusion – reaction equations with anon linear convective terms, Ajay Mishra and Ranjit Kumar, Physics letters A, Vol. 374,2921(2010).

2) Exact solutions of certain variants of Sine – Gordon and non- linear diffusion reactionequations. Ajay Mishra, R.S Kaushal and Awadhesh Prasad. International journal ofnonlinear science (2011).

3) Memory effects in fisher equation with non linear convection term, Ajay Mishra andRanjit kumar, physics letters A, Vol 376, 1833(2012).

4) Exact solutions of certain nonlinear chemotaxis – diffusion reaction equations. AjayMishra , R.S Kaushal and Awadhesh Prasad, Pramana Journal ofPhysics(2016).

5) Traveling of extreme events in network ofcounter-rotating nonlinear oscillators, Vaibhav Varshney,Suresh Kumarasamy,Ajay Mishra,Bibhu Biswaland Awadhesh Prasad , Chaos 31, 093136 (2021).

6)Extreme event in COVID-19 vaccination of Indian data: Effects and Importance Vaibhav Varshney, Arpit Singh, Suresh Kumarasamy, Ajay Mishra and S. Srinivasan (Accepted in AIP Proceedings).

Conference Organization/ Presentations

- **Recent advancements in Theoretical physics and quantum computationDept. of physics, NGM Coll Bharathiar University, Tamil Nadu, 17-19 march (2009).**
- **SERC school on non linear Dynamics, Dept of Physics and Astrophysics, DelhiUniversity, Dec (2009).**
- **Delhi Dynamics Day, School of Physical Science, JNU, 13 Dec 2011.**
- **CDAMOP 2011, Deptt of physics and Astrophysics, Delhi university , 14-16 Dec2011.**

- **Member of organizing committee- The workshop on photonics and other areas organized by COSMOS , Physics society, Dyal Singh College, Feb 2013.**
- **Workshop on foundation course – workshop on science and life, 21-22 June 2013 organised by Centre for professional development, Delhi University.**
- **Introduction to Scilab, Hansraj College (DBT Sponsored), Sept 22-23, 2017**
- **Dynamics Day XII, Ashoka University on 25th Nov 2017.**
- **Faculty Development Programme on Sustainable Development, ARSD College DU, 15th Oct to 22nd Oct, 2018.**
- **Delivered talk in the Dynamics Day – XIII held at IIT Delhi on 16th November, 2019.**
- **National webinar on Biodiversity & Man organized by Deptt of Botany, Dyal Singh College in collaboration with society for Ecological Research & Natural Resources Management on 5th June, 2020**
- **National webinar on Our environment & Covid- 19 organised by Eco club**
 - **‘ paritantra’ of ANDC , University of Delhi on 5th June 2020**
- **Online lecture series on 20th June, 2020 by Indian Association of Physics Teachers, Regional Council (Delhi & Haryana) on light and Einstein ‘s $E= mc^2$**
- **Dynamics Day XIV, Delhi 2020, Online via Google meet on 19th December 2020**
- **National workshop -Challenges of teaching Physics laboratory courses in online mode, 23rd - 25th January, 2021, Deptt of Physics, IQAC, Kalindi College & DU, Delhi & The National Academy of Sciences India, (NASI), Delhi**
- **Programming & software tools for UG courses, 19th - 21st March 2021, Dept of physics & Electronics, IQAC, Rajdhani College, DU**
- **ATAL Faculty Development Program on “Augmented Reality & Virtual Reality”- Digital Holography & 3D Imaging by Birla Vishvakarma Mahavidyalaya Engineering College, 21-25th June, 2021.**
- **AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Artificial Intelligence: Application in Modern Scenarios" from 2021-07-05 to 2021-07-09 at M.B.M. Engineering College, Jodhpur.**
- **ATAL Academy online Elementary FDP on "Photonics: Fundamentals & Applications" from 2021-06-28 to 2021-07-02 at Samarat Ashok Technological Institute.**
- **Online Workshop in pursuance of National Education Policy (NEP 2020) on the topic “*Internationalization of Higher Education*” held on 23rd June 2022.**

Association With Professional Bodies

- **Part of Advisory committee of ATL lab of BBPS, Pitampura from October 2019-2021**

Other Activities like MOOCs/ Patents etc. (From 1st July 2017 onwards)

ONLINE COURSES: (Futurelearn/ Adobe/ Google)

- **Completed “Flipped Learning for Your Classroom” by Adobe education on 11th June 2021**
- **Completed “Spark in the classroom by Adobe education on 11th June 2021**
- **Digital Citizenship and Safety Course by Google education on 20th June, 2021**
- **Distance learning for educators by Google education on 20th June, 2021**
- **Completed Communication and Interpersonal Skills at Work by University of Leeds & institute of Coding, Futurelearn**
- **Completed Digital Skills: Artificial Intelligence by Accenture&Futurelearn**
- **Completed Principles of Engineering by Kings College, London &Futurelearn**

Signature