

DESHBANDHU COLLEGE

(UNIVERSITY OF DELHI) KALKAJI, NEW DELHI - 110019 Faculty Details Proforma for College Website

Titl	Dr.	First	Anil	Last	Kumar	Photograph	
e		Name		Name			
Designation		Assistant Professor					
Address		H. No. 858, G. Puri, Phase-I, Near AIIA, Post office-Sarita Vihar, New Delhi- 110076					
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Residence							
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		kumar/home					
Educational Qualifications							
Degre	ee	Institution				Year	
Ph.D.		University of Delhi			2015		
M.Ph	il.						
PG		University of Delhi			2009		
UG		University of Delhi			2007		
Any o	other fication						
Caree	Career Profile						

Teaching is my passion with the love of holistically educating today's youth. In my ten years of teaching experience, I have taught various papers related to Physics, Electronics and Instrumentation. Along with teaching I always encourage the students to get involved in research related activities so that they can contribute to the society in many ways in their future career.

Administrative Assignments

- 1. Member IQAC Extended Committee (for NAAC Criterion-1)
- 2. Member IQAC Committee for College sign boards
- 3. Member Departmental NAAC Committee
- 4. Co-Convener Departmental Physics Society
- 5. Member Departmental Purchase Committee

Areas of Interest/Specialization

- 1. Electronics and Instrumentation
- 2. Integrated Optics and optical sensing

Subjects Taught

- 1. Digital Systems and Applications
- 2. Basic Instrumentation Skills
- 3. Renewable Energy and Energy harvesting
- 4. Analog Systems and Applications Lab
- 5. Waves and Oscillations Lab

Research Guidance

List against each head (If applicable):

- 1. Supervision of awarded Doctoral Thesis
- 2. Supervision of Doctoral Thesis, under progress
- 3. Supervision of awarded M.Phil. dissertations
- 4. Supervision of M.Phil. dissertations, under progress

Publications Profile

List against each head (If applicable) (as Illustrated with examples)

- 1. Books/Monographs (Authored/Edited):
- 2. Research papers published in Refereed/Peer Reviewed Journals

Research Publications in International Peer Reviewed Journals

Analysis of graphene coated optical fiber for visible range refractive index sensing R Saini, A Kumar, M Kumar, MK Khanna, A Kapoor, G Bhatt Optics Communications 529, 129097

Effect of High Index Buffer Layer in PbSe Clad Waveguide to Design a Visible Range Polarizer

M Kumar, A Kumar, R Saini, MK Khanna, G Bhatt, A Kapoor Optik, 166001

Lossy mode resonance-based refractive index sensor for sucrose concentration measurement

R Saini, A Kumar, G Bhatt, A Kapoor, A Paliwal, M Tomar, V Gupta IEEE Sensors Journal 20 (3), 1217-1222

Integrated optic TE/TM pass polarizers using resonant coupling between ITO thin film lossy modes and dielectric waveguide modes

A Kumar, D Kumar, VK Sharma, A Kapoor Optics Communications 291, 247-252

Enhancement in optical absorption of plasmonic solar cells

YP Singh, A Kumar, A Jain, A Kapoor The Open Renewable Energy Journal 6 (1)

Analysis of surface and guided wave plasmon polariton modes in insulator—metal—insulator planar plasmonic waveguides

VK Sharma, A Kumar, A Kapoor Optics Communications 285 (6), 1123-1127

<u>High extinction ratio metal-insulator-semiconductor waveguide surface plasmon</u> polariton polarizer

VK Sharma, A Kumar, A Kapoor Optics Communications 284 (7), 1815-1821

Spectral interrogation of ZnO thin film for lossy mode resonance sensors

A Kumar, M Kumar, G Bhatt, MK Khanna, A Kapoor Advanced Science Letters 24 (2), 796-801

Analysis of Silicon Clad Optical Waveguide for High Extinction Ratio TE/TM Pass Polarizers using Resonant Coupling between Guided Modes and Lossy Modes

R Saini, M Kumar, A Kumar, G Bhatt, MK Khanna, A Kapoor

- a) Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals NA
- b) Research papers published in Refereed/Peer Reviewed Conferences:
 - Preparation of Mg-doped ZnO nanoparticles by Sol-gel method and their Optical &

structural properties ISDRS 2013, December 11-13, 2013

- c) Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conferences:NA
- 3. Other publications (Edited works, Book reviews, Festschrift volumes, etc.):
 - Acted as Co-editor of a book titled "Balochistan: What world Needs to Know" ISBN No.- 978-93- 84835-10-1, Published by India Policy Foundation, 2016

Conference Organization/ Presentations

List against each head(If applicable)

- 1. Organization of a Conference:
 - Organizing Committee Member of a Conference on E-Waste: Sustainability and Management during March, 2013 at BCAS, DU.
 - Organizing Committee Member, in 5 days "Better Process Control School" at BCAS DU during March 2016.
 - Co-Convener of two Workshops on 'Robotics' organized at BCAS, DU organized during 2014 and 2015 respectively.
 - Organizing Committee Member of a two days Seminar on 'Financial Literacy' organized at BCAS, DU during April, 2022.
- 2. Participation as Paper/Poster Presenter
- Presented a poster on "Analysis Of ZnO Thin Film Based Refractive Index Sensor" in International Conference on Advances in Nanomaterials and Nanotechnology, 4 - 5 Nov, 2016, Jamia Millia Islamia, Article No. 298, Page No. 308, Proceeding ISBN: 978-93-85000-94-2
- Presented a poster on "Planar Dielectric Waveguides with Dual Resonance Nature ITO Claddings and their Applications" in First Indo-Canadian Symposium on Nano-Science and Technology, Feb. 20-21, 2013, NIE Mysore-08

Research Projects (Major Grants/Research Collaboration)

NA

Awards and Distinctions

• Research Fellowship award by University Grants Commission during 2011.

Association With Professional Bodies

• Life Member, (Vijnana Bharati) Vibha, A National Science Movement

Other Activities

- Invited as Judge for Dr Kalam Debate Competition 2019-10-15, organized by Space India (Space Technology & Education Pvt. Ltd.) at K.R. Mangalam World School, Gurugram
- Certificate of Appreciation for serving as Reviewer by Journal of Nanophotonics, SPIE during 2016-01-01

Signature of Faculty Member

• You are also requested to give your complete resume as a Word or PDF file to be attached as a link on your department page.