




SHIVAJI COLLEGE FACULTY DETAILS PROFORMA

Title	Dr.	First Name	Arun Vir	Last Name	Singh	Photograph
Designation		Associate Professor				
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Educational Qualifications						
Degree		University/Institute			Year	
Ph.D.		Delhi University			2003	
M.Phil./M.Tech.		Kurukshetra University			1982	
PG		Kurukshetra University			1981	
UG		Delhi University			1978	
Any Other Qualification						
Career Profile						

Administrative Assignments

Teacher In-charge.

Department of Physics

Coordinator

Practical Examination Shivaji College

Convener

Admission Committee (Physical Science)

Convener Placement Cell

Convener Physical Lab verification (Lab Audit)

Convener Garden Committee

Member:

Internal Assessment Committee

Library Committee

Discipline Committee

Anti-ragging Committee+ Anti Ragging Squad

Remedial Cell

Technical Committee

General Purchase Committee

Canteen Committee

Sports Committee

Development Committee

Fee Concession Committee

Areas of Interest/Specialisation

Semiconductors

Subjects Taught

Analog Systems and Applications

Digital Systems and Applications.

Electromagnetic Theory

Digital Electronics

Optics

Electricity and Magnatism

Nuclear and Particle Physics

Innovation Project/Research Projects (Major Grants/Research Collaboration)

Co-principal investigator Development of ZnO/Si Hetrostructure for photodiodes application using Sol-Gel Techniques , (DRDO) given in the Department of Electronic Science, University of Delhi South Campus, New Delhi- 11002.

Publications Profile (*Research Papers/Books*)

List of research publications: 14 (Journals)

- Optimization of Electrical and Optical Properties of Pulsed Laser Deposited Aluminum Doped Zinc Oxide Films. International Journal of Electronics Engineering, 11 (1), 2019, 997-985.
- Effect of Thickness on Structural Optical and Electrical Properties of ZnO: Al films prepared by laser ablation. International Journal of Electronics Engineering, 10 (1), 2018, 392-400.
- Structural, dielectric and piezoelectric properties of ZnO nanoparticles and its application in liquid crystal based patch antenna. International Journal of Electronics Engineering, 10 (2), 2018, 932-937.
- Sol-gel derived highly transparent and conducting yttrium doped ZnO films., Journal of Non-Crystalline Solids. 352 (2006) 2335-2338.
- Sol-gel derived yttrium doped nanostructures . Journal of Non-Crystalline Solids, 352 (2006) 2565.
- Physical properties of natively textured yttrium doped zinc oxide films by sol-gel. Journal of Materials Science in electronics, 16 (2005) 649.
- Structural, electrical and optical properties of sol-gel derived yttrium doped ZnO films . phys.stat.sol.(a),202(6) , (2005),1053-1059.
- . Development of highly transparent and conducting yttrium doped ZnO films: Role of sol- gel stabilizers. Materials Science, -Poland, 22 (2004) 201.
- Doping mechanism in aluminum-doped zinc oxide thin films . J. Appl. Phys., 95 (2004) 3640.
- p-type conduction in codoped ZnO thin films . J. Appl. Phys. 93 (1), (2003) 396.
- Al doped Zinc Oxide (ZnO:Al) thin films by pulsed laser ablation . J. Indian Inst. Science, 81 (2001) 527-533.
- Optical properties of large bandgap Se- and S-doped amorphous silicon. Journal of Non- Crystalline Solids, 266-269 (2000) 708-712.
- Study of ZnO:Al thin films prepared by ArF excimer laser ablation . Indian J. Eng. & Mat. Sci., 7 (2000) 259-263.
- . Highly conductive and transparent aluminum-doped zinc oxide thin films prepared by pulsed laser deposition in oxygen ambient. Journal of Applied Physics, . 90(11), (2001),5661-5665.

List of Publications In Proceedings: National/ International Conferences

International National Conference: 2

- .Optimization and Characterization of Highly Conductive and Transparent Al-doped ZnO films for Solar Cell Applications . 3rd World Conference on Photovoltaic Energy Conservation (May 11-18, 2003) Osaka, Japan. pp-
- Transparent and Conducting Sol-Gel Derived Yttrium Doped Zinc Oxide Films. 19th European Photovoltaic Solar Energy Conference and Exhibition, Paris,France, 7-11 June 2004.,Paris,France.,pp.374-376

National Conference: 3

- Characterization of Transparent and Conducting Sol-Gel Derived Yttrium Doped Zinc oxide Films. National Conference on Materials and their Applications (NCMA-2004) March 11-13, 2004, Department of Physics, Kurukshetra University, Kurukshetra.
- Effect of Target-Substrate Distance on the Physical Properties of Al-Doped ZnO Films. National Conference on Materials and their Applications (NCMA-2004) March 11-13, 2004, Department of Physics, Kurukshetra University, Kurukshetra .
- Development and Characterization of ZnO/Si Hetrostructure.(sol-gel derived)
Asia Pacific Microwave Conference (APMC-2004), December 15-18, 2004, New Delhi, APMC/04/C/87

Conference/Seminar/Faculty Development Programme/Workshop

Convener: National Conference on Current and Future Perspectives in Nanotechnology "NANOWORLD-2018" Sponsored by CSIR , Organized by Department of Physics Shivaji College, April, 2018.

Paper Presented:

International Conference : 1

International Conference on Advanced materials (ICAM-2000, Dec.26- 28,2000) C.C.S University, Meerut.

National Conference : 1

National Conference on Materials and their Applications (NCMA-2004) March 11-13, 2004, Department of Physics, Kurukshetra University, Kurukshetra.

Faculty Development Programme :1

Institute of Life long Learning (ILLL) University of Delhi for "C& C++ Programming Language " ,June 08-17, 2011

Departmental Events Organized

Organiser Workshop : 3

- Workshop on Astrophysics, Cosmology and Computation, Organized by Department of Physics, Shivaji college. February,2016.
- Workshop PRATIBIMB -2017, Organized by Department of Physics, Shivaji College, January,2017.
- Workshop SPECTRUM -2018, Organized by Department of Physics, Shivaji College, Feb,2018.

Participation In Conference, Workshop

- National Conference on Progress in Photovoltaics NC-PPV 2010: 06 March 2010, Organised by Semiconductor Society (INDIA) and Sharda University.
- 61th Autumn meeting of JSAP,(Hokkaido-Japan) (2000)
- Tokai-section joint conference of the eight institutes of electrical and related engineers. (Sept. 2000, Hamamatu-Japan)

International Conference Participation

- First WDC International Conference on Empowerment of Women in Developing World , April 01-02,2013, Organised by Women 's Development Cell, Shivaji College, University of Delhi, Delhi-110027.

Workshop

- Regional Workshop on Characterization of semiconductor Nanostructure and their Applications to Optoelectronic Devices University of Delhi, South Campus, Delhi-21, December 1-4,1998.
- India-Japan Workshop on ZnO Materials and devices (IJW2006) Dec 18-20, Organized by Department of Electronic Science University of Delhi South campus ,New delhi-110021. South Campus, New Delhi.

Research Guidance (*Supervision of Doctoral Thesis/Dissertations*)

Awards and Distinctions

Fellowship

Association of International Education Japan AIEJ (Japan), (Dec.1999 – Nov.2000).

Deputation

Shesrubtse College, Kanglung , Royal University of Bhutan. February 2009- 2011

Memberships

Semiconductor Soceity of India

Other Academic Activities

CONTRIBUTION TO DEVELOPMENT OF E-CONTENT

Institute of Life long Learning, University of Delhi , Digital electronics PHHT:206

- Operational Amplifier: Characteristics and Open-Loop Op-Amp.
- Feedback in Operational Amplifier.
- Applications of Operational Amplifier: Linear Circuits-Inverting, Noninverting, Adder, Subtractor Amplifiers.
- Applications of Operational Amplifier: Nonlinear Circuits . Lesson-I: Integrator.

- Applications of Operational Amplifier: Non Linear Circuits: Lesson-II Differentiator and Zero-Crossing Detector
- Member: Model Question Paper and Problem Set Preparation Committee for B.Sc (H) Physics, II Yr- Sem III (Digital System and Applications)
- Convener : Model Question Paper and Problem Set Preparation Committee for B.Sc (H) Physics ,IIIYr , Sem VI (Electromagnetic Theory)

Paper Presented:

- Centre for Professional Development in Higher Education, (CPDHE) , University of Delhi, 2004.
- Refresher course conducted by Physics Department Maharishi Dayanand University Rohtak, Haryana. 2004.

Cultural/Extracurricular Activities

Departmental Events : 2

- Annual Departmental Fest INVENIO, Organized by Department of Physics, Shivaji college., March,2017.
- Annual Departmental Fest INVENIO 2K19 , Organized by Department of Physics, Shivaji College, March,2019.

Arun Vir Singh

Signature of Faculty Member