

Dr. Sandeep Gupta	National Seminar on Challenges in Sustainable Management of Natural Resources	KU, Kurukshetra March 24-25, 2017	LiDAR in Monitoring and Managing Forests
	International Conference AOGS2017	Singapore Aug. 6-11, 2017	An Appriasal of Probabilistic Tsunami Threat based on Stoachstic Modeling in the Western Pacific Tsunamigenic Region
Er. Shivani	Swarna Jayanti National Conference on Biodiversity and Sustainabel Utilization of Plant Resources	KU, Kurukshetra Feb. 17-18, 2017	A Review on Trends in Energy Use and Carbon Dioxide Emissions

# Faculty of Science



# Faculty of Science

Dean: Dr. N.N.Dogra, from 02.11.2017

Prof. Shyam Kumar, upto 01.11.2017

## Departments/Institutes of the Faculty

Physics

Chemistry

Mathematics

Statistic & Operational Research

Geophysics

Computer Science & Applications

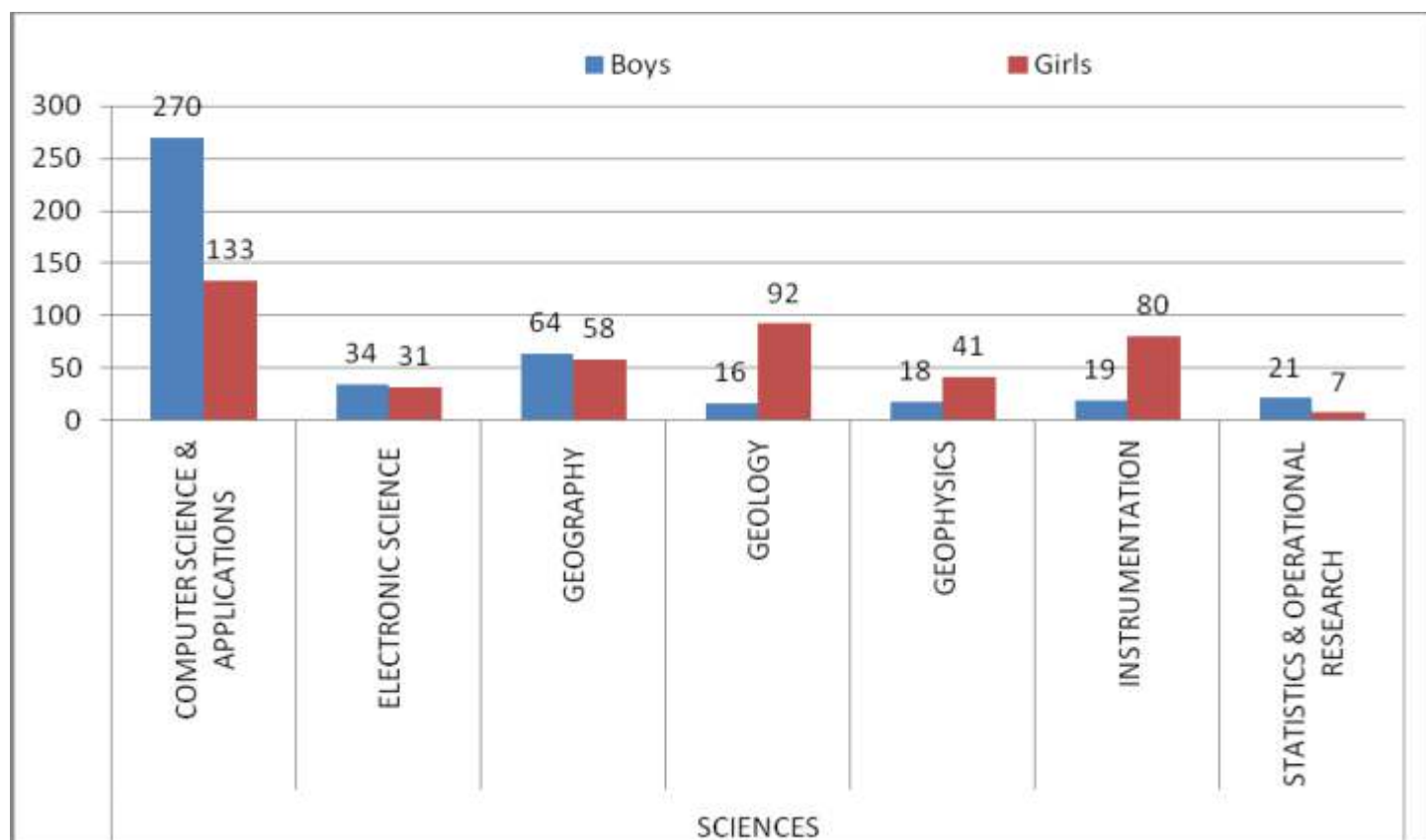
Electronic Science

Geography

Geology

Instrumentation

## A Profile of the Student in Faculty of Science



### FACULTY DEPARTMENT DEAN

#### Chairperson

**SCIENCE  
PHYSICS  
PROF. N.N.DOGRA  
PROF. SHYAM KUMAR  
Prof. R. K. Moudgil**

**from 02.11.2017  
upto 01.11.2017**

#### Professors

(i) Dr. R. K. Moudgil, Ph.D., (ii) Dr. Shyam Kumar, Ph.D.,  
(iii) Dr. M. S. Yadav, Ph.D., (iv) Dr. Sanjeev Aggarwal, Ph.D.  
(v) Dr. Fakir Chand, Ph.D.

#### Associate Professor

(i) Dr. Rajesh Kharab

#### Assistant Professors

(i) Dr. Annu Sharma, Ph.D., (ii) Dr. Suman Mehandia, Ph.D.,  
(iii) Dr. Manish Kumar, Ph.D., (iv) Dr. Hardev Singh, Ph.D.

#### Students

Class	Boys	Girls	Total
M.Sc. (P)	44	70	114
M.Sc. (F)	29	85	114
<b>Total</b>	<b>73</b>	<b>155</b>	<b>228</b>

### Research Work Ph.D. Awarded

Name of Scholar	Title of Thesis	Name of Guide	Month & Year of Award
Rubi	Studies on the Effect of Argon Ion Implantation on Structural and Optical Behaviour of Low and High Density Polyethylene	Dr. Sanjeev Aggarwal	October, 2017

### Research Contribution of Teaching Staff

Name of Teacher	Topic/Field of Research	Journal/Book
Dr. Shyam Kumar	Microwave Assisted Facile Synthesis of Reduced Graphene Oxide-Silver (RGO-Ag) Nanocomposite and their Application as Active SERS Substrate.	Materials Chemistry and Physics, 194 (2017) 274-282
	Energy Loss of Swift Heavy Ions in Solids.	CPHU-Research Journal, 2 (2017) 68-70.
Dr. R. K. Moudgil	Spin-resolved Correlations in the Warm-Dense Homogeneous Electron Gas	Eur. Phys. J. B 90 (2017)76
	Quantitative Measurement of Transport Properties: Ag-doped Nanocrystalline CdS thin Films	RSC Advances 7 (2017) 53951



Dr. R. K. Moudgil	Plasmons in a Semiconductor Electron Quantum Wire at Finite Temperature in the Random Phase Approximation	AIP Conference Proceedings 1832 (2017) 120006
Dr. Sanjeev Aggarwal	Rutherford Backscattering Spectrometry Studies of 100 keV Nitrogen Ion Implanted Polypropylene Polymer	Nuclear Instruments and Methods in Physics Research Section B, 407 (2017) 125-131
	Effect of Low Fluence Radiation on Nanocomposite Thin Films of Cu Nanoparticles Embedded In Fullerene C60	Vacuum, 142 (2017) 5
	Low Energy Oblique Ion Beam Sputtering Induced Surface Engineering of Polyethylene Terephthalate	Integrated Ferroelectrics, 184 (2017) 172-177
	Surface Characteristic Study of 130 keV Argon Ion Implanted Polypropylene Polymer	Integrated Ferroelectrics, 184 (2017) 186-191
	Grafted SiC Nanocrystals: For Enhanced Optical, Electrical and Mechanical Properties of Polyvinyl Alcohol	Journal of Alloys and Compounds, 714 (2017) 172.
	Functionalized SiC Nanocrystals for Tuning of Optical, Thermal, Mechanical and Electrical Properties of Polyvinyl Alcohol	Thin Solid Films, 628 (2017) 176,
	Modifications Induced in the Optical Properties of Starch by Embedded Ag Nanoparticles	Advanced Materials Proceedings 2(10) (2017) 662-666
Dr. Fakir Chand	Structural, Optical and Magnetic Properties of N ion Implanted CeO <sub>2</sub> Thin Films	Royal Society of Chemistry (RSC) Adv., 7, 9160-68, 2017.
	Dynamics of Shallow Water Waves with Various Boussinesq Equations	Acta Physica Polonica A, 131, 275-282, 2017
	Effect of Rose Water on Structural, Optical and Electrical Properties of Composites of Reduced Graphene Oxide-Poly (vinyl alcohol) (PVA) Grafted with Silver Nanoparticles	Material Research Express, 4, 25021, 2017
	Enhancement of Ferromagnetism in C ion Implanted CeO <sub>2</sub> Thin Films	Material Research Express, 4, 036403, 2017
	Complex integrals for 3-dimensional Non-Hermitian Hamiltonian Systems	Chinese J of Physics, 2017
	Energy Spectra of a Two Dimensional Parabolic Quantum Dot in an External Field	Ind. J. Phys, 2017 ( DOI 10.1007/s12648-017-1085-0)
Dr. Rajesh Kharab	"Role of Tunnelling in Complete and Incomplete Fusion Induced by <sup>9</sup> Be on <sup>169</sup> Tm and <sup>187</sup> Re Targets at Around Barrier Energies".	Nucl. Phys. A, Vol. 960 (2017) 11-21

Dr. Rajesh Kharab	"Skyrme Forces and Decay of the $^{104}\text{Rf}^{*266}$ Nucleus Synthesized via Different Incoming Channels"	Phys. Rev. C 95 (2017) 034602
Dr. Annu Sharma	Grafted SiC Nanocrystals: For enhanced Optical, Electrical and Mechanical Properties of Polyvinyl Alcohol	Journal of Alloys and Compounds, 714(2017)172-180
	Functionalized SiC Nanocrystals for Tuning of Optical, Thermal, Mechanical and Electrical Properties of Polyvinyl Alcohol	Thin Solid Films, 628(2017)176-183
	Tailoring of Optical and Electrical Properties of PMMA by Incorporation of Ag Nanoparticles	Bulletin of Material Science (2017) DOI 10.1007/s12034-017-1434-9
	Structural and Thermal Characterization of Polyvinylalcohol Grafted SiC Nanocrystals	Materials Research Express, 4, 7, 075016 (2017)
	Rutherford Backscattering Spectrometry Studies of 100 KeV Nitrogen Ion Implanted Polypropylene Polymer	Nuclear Instruments and Methods in Physics Research B 407C (2017) 125-131
	Surface Characteristic Study of 130 KeV Argon Ion Implanted Polypropylene Polymer	Integrated Ferroelectrics 184 (2017). 186-191
	Low Energy Oblique Ion Beam Sputtering Induced Surface Engineering of Polyethylene Terephthalate	Integrated Ferroelectrics 184 (2017). 172-177
	Modifications Induced in the Optical Properties of Starch by Embedded Ag Nanoparticles	Advanced Materials Proceedings 2(10) (2017) 662-666
	Study of Structural and Electrical Properties of Ag-starch Nanocomposites	Integrated Ferroelectrics 184 (2017). 158-165
Dr. Manish Kumar	Impedance Analysis and Dielectric Response of Anatase $\text{TiO}_2$ Nanoparticles Codoped with Mn and Co ions	Materials Research Express 4, 115035 (2017)
	Structural, Optical and Weak Magnetic Properties of Co and Mn Codoped $\text{TiO}_2$ Nanoparticles	Solid State Sciences 73, 19 (2017).
	Structure Stability and Magnetism in Graphene Impurity Complexes with Embedded V and Nb Atoms	J. Magn. Magn. Mater. 433, 109 (2017)
	Sublattice Dependent Magnetic Response of Dual Cr Doped Graphene Monolayer: A Full Potential Approach	Indian J. Phys. 91, 43 (2017)
	Half-Metallic Ferromagnetism in V-Doped AlP: An Imperative Compound for Spintronics	AIP Conf. Proc. 1832, 130017 (2017)

### Lectures/Seminar/Conferences/Congresses etc. arranged in the Department

Prof. Rahul Pandit, Chairman, Division of Physical and Mathematical Sciences, Bangalore delivered a lecture on Models for cardiac arrhythmias on April 4, 2017.

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Dr. Shyam Kumar	"National Conference" on Recent Developments in Science & Technology in Modern Era	Arya P.G. College Panipat, Haryana, December 15, 2017	Role of Accelerators in Front Line Research in Diverse Disciplines
Dr. R.K.Moudgil	National Seminar on "Emerging Trends in Science & Technology"	Department of Physics, Arya PG College Panipat; February 18, 2017	Physics of Electrons in Dimensions Less than Three
Dr. Sanjeev Aggarwal	Extension Lecture Series	Dept. of Physics, Dyal Singh College, Karnal, Sept. 14, 2017	Invited Talk: Nuclear Radiation Detectors,
	Shodh Shiksha Sameeksha, by MHRD & UGC, Govt. of India	Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, Oct. 1, 2017	Presented the Status of Kurukshetra University Ion Beam Facility,
Dr. Fakir Chand	62nd DAE-BRNS Symposium	Thapar University, Patiala December 20-24, 2017	Study of the Mass Spectra of Mesons Using Asymptotic Iteration Method
Dr. Manish Kumar	APS March Meeting,	Ernest Morial Convention Center New Orleans, LA (USA), March 13-17, 2017	(i) Tunable optical properties of $\text{ZnCdTe}_{2-x}\text{Se}_x$ ( $x = 0.625$ ) Chalcopyrite for Photovoltaics; a mBJLDA Approach
			(ii) Interplay Between Magnetostructural Transformation and Magnetocrystalline Anisotropy in $\text{TbMn}_2$
	IUAC School on Characterizations of Materials.	IUAC, New Delhi, Sept. 04-09, 2017	(i) Electronic Structure Calculations-I: DFT Approach
			(ii) Electronic Structure Calculations-II: New Areas and Recent Results

### Noteworthy Achievements :

Prof. Shyam Kumar, Member:- Accelerator Users Committee Inter University Accelerator Centre (IUAC), New Delhi

Prof. R.K.Moudgil has been nominated by MHRD on the Governing Council of National Institute of Technology, Hamirpur for a period of three years 2017-2020.

Prof. Sanjeev Aggarwal, Prof. Shyam Kumar and Dr. Annu Sharma, (K.U.Kurukshetra) Dr. D. Kanjilal and Dr. S. Chopra (IUAC New Delhi) have successfully completed the Major Research Project worth Rs. 11.60 Crores on Sept. 30, 2017 funded by DST, New Delhi for the installation and establishment of 'Ion Beam Facility' comprising a 200 kV Ion Accelerator at Kurukshetra University which is now running successfully as a 'National Facility'.

Dr Manish Kumar has been awarded UGC-Raman Post-Doctoral Fellowship from 01-08-2016 to 31-07-2017 at Ames Laboratory, Ames, IA (USA).

Dr Manish Kumar has been awarded DST-EMR research project entitled "Novel rare earth free permanent magnets for clean energy applications" worth Rs. 25,29,277/-

### DEPARTMENT Chairperson

### CHEMISTRY Prof. Sanjiv Arora

#### Professors

(i) Dr. R.C. Kamboj, Ph.D., (ii) Dr. H.K. Sharma, Ph.D.,  
(iii) Dr. Neera Raghav, Ph.D., (iv) Dr. Ranjana Aggarwal, Ph.D.,  
(v) Dr. Pawan K. Sharma, Ph.D. (vi) Dr. Kiran Singh, Ph.D.,  
(vii) Dr. Gyan P. Dubey, Ph.D.

#### Assistant Professors

(i) Dr. Hardeep Anand, Ph.D., (ii) Dr. Ashwani Vihana, Ph.D.,  
(iii) Dr. Ramesh Kumar, Ph.D., (iv) Dr. Sangeeta, Ph.D.,  
(v) Dr. Parvin Jangra, Ph.D., (vi) Dr. Suresh Kumar, Ph.D.,  
(vii) Dr. Ashu Chaudhary, Ph.D. (viii) Dr. Raj Kamal, Ph.D.,  
(ix) Dr. Rashmi Pundeer (SFS), Ph.D., (x) Dr. Ritu, Ph.D.,  
(xi) Dr. Sohan Lal, Ph.D.

#### Students

Class	Boys	Girls	Total
M.Sc. (P)	41	96	137
M.Sc. (F)	38	95	133
<b>Total</b>	<b>79</b>	<b>191</b>	<b>270</b>

### Research Work Ph.D. Awarded

Name of Scholar	Title of Thesis	Name of Guide	Month & Year of Award
Ankita	Effect of ionic Liquids on the Aggregation Behavior of Surfactants in Aqueous Media	Prof. Amalendu Pal	January, 2017
Radhika Khanna	Study of Heterocyclic Compounds" Photochemical Transformation, Fluorescent Studies of Some Chromenones and SiO <sub>2</sub> -HNO <sub>3</sub> Mediated Transformations of Some Quinoline Derivatives"	Dr. Ramesh Kumar & Prof. R.C. Kamboj	January, 2017
Ekta Rawat	Investigations on Some Potentially Biodynamic Macrocyclic Complexes: Synthesis, Characterization and Applied Aspects	Dr. Ashu Chaudhary	March, 2017
Indu Ravish	Some Non-Peptidyl Compounds as Inhibitors to Cathepsins and Phosphatases	Prof. Neera Raghav	May, 2017
Aarti	Solution Phase Photochemistry "Photochemical Transformations of Some Epoxyketones and Chromenones	Prof. R.C. Kamboj	September, 2017
Suman	Synthesis, Catheptic Inhibitory Studies and Cellular Aspects of Some Heterocyclic Compounds	Prof. Neera Raghav	October, 2017

Renu Verma	Ultrasonic Velocity and Transport Studies of Tetraalkylammonium Salts in Binary Mixtures of Methanol with Acetonitrile and Dimethylsulfoxide at 298.15 K	Dr. Hardeep Anand	October, 2017
Monika Rani	Spectrophotometric Methods for the Determination of Titanium and Zirconium	Prof. H.K. Sharma	November, 2017

### Research Contribution of Teaching Staff

Name of Teacher	Topic/Field of Research	Journal/Book
Dr. R. C. Kamboj	Synthesis of Some Benzothiazoles <sup>b</sup> y Developing A New Protocol Using Urea Nitrate as a Catalyst and their Antimicrobial Activities	Journal of Sulfur chemistry, 10.1080/17415993.2017.1334781
	Photo-reorganization of 3-alkoxy-6-chloro-2-(benzo[b]thiophen-2-yl)-4H-chromen-4-ones: A Green and Convenient Synthesis of Angular Pentacyclics	Photochemical & Photobiological Sciences, Vol 16; pages 672-682, 2017
	Synthesis of Some 4-Quinoliny Pyridines and their Antimicrobial and Docking Studies	J. Heterocyclic Chem., 2017, doi: 10.1002/jhet.2876
	A Green And Convenient Synthesis of 2-Aroylbenzofurans in Aqueous Media	Arabian Journal of Chemistry, Vol 10, Supplement 2, Pages S3190-S3196, 2017
Dr. Amalendu Pal	Thermodynamic Properties of Glycine and Diglycine in Aqueous Solutions of 1-pentyl-3-Methylimidazolium Chloride at Different Temperatures.	Journal of Molecular Liquids, 2017, 229, 417-423.
	Influence of Salt on Interaction Between Surface Active Ionic Liquid [C12mim][Br] and Anionic Polyelectrolyte Poly(sodium-4-styrenesulphonate).	Journal of Molecular Liquids, 2017, 229, 309-318.
	Solvation Behavior of Glycine and Glycyl Dipeptide in Aqueous 1-butyl-3-Methylimidazolium Bromide Ionic Liquid Solutions at Different Temperatures.	J. Molecular Liquids 2017,233,38-44.
	Modulation in Surface and Aggregation Properties of Non-ionic Surfactant Triton X-45 on Addition of Ionic Liquids in Aqueous Media.	J. Mol. Liquids, 2017,233,243-250
	Hydration Properties of Glycylglycine in Aqueous Ionic Liquid Solutions at Different Temperatures: Volumetric and Acoustic Approach.	J.Mol.Liquids, 2017,234,187-193.



Dr. Harish K. Sharma	Non-Extractive Spectrophotometric Determination of Sn(II) with 5,7-Dibromo-8-hydroxyquinoline (DBHQ) (1407)	Chem Sci Trans., 2017, 6(1), 154-158
	Novel Methodology for the Synthesis of p- tert- Butylcalix[8]arene	Chem Sci Trans.
Dr. Ranjana Aggarwal	Thiazole: A Privileged Motif in Marine Natural Products,	Mini Reviews in Organic Chemistry (2017), accepted
	Synthesis and Cytotoxic Evaluation of Some New 1-(6-Chloropyridazin-3-yl)-3-H-alkyl-4-phenyl-1-H-pyrazol-5-amines and Their Derivatives	Indian Journal of Heterocyclic Chemistry (2016), 26, No. 1 & 2.
Dr. Pawan K. Sharma	Grafted SiC Nanocrystals: For Enhanced Optical, Electrical and Mechanical Properties of Polyvinyl Alcohol	Journal of Alloys and Compounds, 2017, 714, 172-180
	Functionalized SiC Nanocrystals For Tuning of Optical, Thermal, Mechanical and Electrical Properties of Polyvinyl Alcohol.	Thin Solid Films, 2017 628, 176-183.
	Synthesis, Hybridization and Fluorescence Properties of A 2'-C-Pyrene-Triazole Modified Arabino-Uridine Nucleotide	Bioorganic & Medicinal Chemistry, 2017, 25(7), pp.2084-2090.
	Benzenesulfonamide Bearing Imidazothiadiazole and Thiazolotriazole Scaffolds As Potent Tumor Associated Human Carbonic Anhydrase IX and XII Inhibitors.	Bioorganic & Medicinal Chemistry, 25(3), pp.1286-1293.
Dr. N. Raghav	Quinazolinone Derivatives as Cathepsins B, H and L Inhibitors and Cell Proliferating Agents	International Journal of Biological Macromolecules, 2017, 94, 719-727
	A Comparative Account of SAR Studies of Semicarbazones On Thiosemicarbazones on Cathepsins H and L	Medicinal Chemical Research, 2017, 1-12
	SAR studies of Some Acetophenone Phenylhydrazone based Pyrazole Derivatives as Anti- Cathepsins Agents"	Bioorganic Chemistry, 2017, 75, 38-49
Dr. Kiran Singh	Structural Elucidation of Bio-Active Metal Complexes of Schiff Base Derived from Condensation of 2,5- Dimethoxybenzaldehyde with Substituted 1,2,4-Triazine Scaffold.	Journal of Applicable Chemistry, 6 (2017) 299-310
Dr. Gyan P. Dubey	Studies of Volumetric, Viscometric and Molar Properties Of Diisopropyl Amine with 1-Alkanols (C6–C10) At Different Temperatures.	Journal of Molecular Liquids 229 (2017) 255.

Dr. Gyan P. Dubey	Thermo physical and FT-IR Study on Binary Mixtures of 2-isopropoxy Ethanol and Alcohols at Different Temperatures.	Journal of Molecular Liquids 233 (2017) 479.
	Studies of Mixing Properties of Binary Systems of di-n-butylamine with alkanols at T = (293.15, 298.15, 303.15, 308.15 and 313.15) K.	Journal of Molecular Liquids 234 (2017) 335.
Dr. Raj Kamal	Synthesis and Application of 3-Hydroxy-2-[3-(4-Methoxyphenyl)-1-Phenyl-4-Pyrazolyl]-4-Oxo-4h-1-Benzopyran for Extractive Spectrophotometric Determination of Vanadium (V)	Der Chemica Sinica, 2017, 8(1):158-165
	Heterocyclic Analogues as Kinase Inhibitors: A Focus Review	Current Topics in Medicinal Chemistry, 2017, 17, 1-13.
	Design, Synthesis, and Screening of Triazolopyrimidine–Pyrazole Hybrids as Potent Apoptotic Inducers.	Pharm. Chem. Life Sci. 2017, 350, e1700137
Dr. Parvin Kumar	Prospective Natural Analogues for Anticancer Therapy: A Mini Review	Anti Cancer Agents in Medicinal Chemistry, 2017 (Accepted)
	Design, Synthesis, Conformational and Molecular Docking Study of Some Novel Acyl Hydrazone Based Molecular Hybrids as Antimalarial and Antimicrobial Agents	Chemistry Central Journal, 2017, Volume 11, 115
	Monte Carlo Method Based QSAR Studies of Mer Kinase Inhibitors in Compliance with OECD Principles	Drug Research, 10.1055/s-0043-119288
	Synthesis of Novel Inhibitors of $\alpha$ -amylase Based on the Thiazolidine-4-one Skeleton Containing a Pyrazole Moiety and Their Configurational Studies	Med Chem Comm, Vol 8 (7), 1468-1476
	Multicomponent Synthesis of Some Molecular Hybrid Containing Thiazole Pyrazole as Apoptosis Inducer	Drug Research, 10.1055/s-0043-116947
	Synthesis of Some Benzothiazoles by Developing a New Protocol Using Urea Nitrate As a Catalyst and their Antimicrobial Activities	Journal of Sulfur chemistry, 10.1080/17415993.2017.1334781
	Photo-reorganization of 3-alkoxy-6-chloro-2-(benzo[b]thiophen-2-yl)-4H-chromen-4-ones: A Green and Convenient Synthesis of Angular Pentacyclics	Photochemical & Photobiological Sciences, Vol 16; pages 672-682, 2017
	Synthesis of Some 4-Quinoliny Pyridines and their Antimicrobial and Docking Studies	J. Heterocyclic Chem., 2017, doi: 10.1002/jhet.2876

Dr. Parvin Kumar	A Green and Convenient Synthesis of 2-Aroylbenzofurans in Aqueous Media	Arabian Journal of Chemistry, Vol 10, Supplement 2, Pages S3190-S3196, 2017
	Synthesis of Heterocyclic Compounds via Multicomponent Reaction (Reference Book)	LAP LAMBERT Academic Publishing ISBN-13: 978-3-330-08288-5; 2017
	Systematic Identification of Organic Compounds (Text Book)	LAP LAMBERT Academic Publishing ISBN-13: 978-3-330-09052-1; 2017
Dr. Ramesh Kumar	Synthesis of Some 4-Quinoliny Pyridines and their Antimicrobial and Docking Studies	J. Heterocyclic Chem., 2017, doi: 10.1002/jhet.2876
Dr. Hardeep Anand	Comparative Solvation Behaviour of Li <sup>+</sup> and Na <sup>+</sup> ions in Acetonitrile and Nitromethane Binary Mixtures at 298.15 K	Der Pharma Chemica, 9(5), 63-65, 2017
	Ion-solvent Interactions of some Chromium (III) Complexes in Nitromethane and Dimethylsulfoxide Studied Viscometrically at 298.15, 308.15 and 318.15 K	Der Pharma Chemica , 9(22), 72-78, 2017
	Study of Corrosion Inhibition of Mild Steel in 0.01 M HCl by Corrosion Inhibitors: A Comparative Study	International Journal of ChemTech Research, 10(15), 232-238, 2017

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Prof. Sanjiv Arora	6th National Conference on Chemical & Environmental Sciences; Emerging Dimensions & Challenges Ahead	Department of Chemistry, Arya P.G. College, Panipat, April 1, 2017	Polymer Composites
	National Seminar on Innovative Practices in Chemistry	S. A. Jain (P.G.) Ambala City, February 23, 2017	Thermal Studies
Dr. Kiran Singh	National Conference	Department of Chemistry, Bhaskaracharya College of Applied Sciences, University of Delhi, February 16-17, 2017	Clean & Green Energy : The Chemical & Environmental Aspects " (NCGE-2017)
	National Conference	Amity School of Applied Sciences, Amity University, UTTAR PRADESH, Lucknow Campus, March 29-30, 2017	Current Trends in Chemical & Environmental Sciences & Their Applications. ( NCCTCESA-2017)

Dr. Kiran Singh	3rd International Conference	SRM University, Delhi NCR Campus & Asian Publication Corporation, December 8-9, 2017	Global Trends in Pure and Applied Chemical Sciences
	36th Annual National Conference of Indian Council of Chemists	School of Chemistry, Andhra University, Visakhapatnam- 530003 (A.P.), December 26 -28, 2017.	Invited Guest
Dr. Hardeep Anand	New Paradigm in Chemical Sciences: Synthetic and Analytical Perspectives-2017 (NPICS: SAP-2017)	Department of Chemistry, Punjabi University, Patiala February 9-10, 2017	Compressibility Studies of Preferential Solvation of Tetraalkylammonium Salts in Dimethylsulfoxide + Methanol Binary Mixtures at 298.15 K
	6th National Conference on Chemical & Environmental Sciences; Emerging Dimensions & Challenges Ahead	Department of Chemistry, Arya P.G. College, Panipat April 1, 2017	Ion-Solvent Interaction Studies of Chromium (III) Complexes in Organic Solvents
Dr. Parvin Kumar	New Paradigm in Chemical Sciences: Synthetic and Analytical Perspective-2017 (NPICS-SAP-2017)	Department of Chemistry, Punjabi University, Patiala	Synthesis of Some Novel Derivatives of 1- [(1-phenyl-3-aryl-1H- pyrazole-4-yl)methylene- 2,4-arylthiazole-2- yl]hydrazide
	Organic, Metallorganic and Thermodynamics (NCOMT- 2017)	Department of Chemistry, GJUST, Hisar.	Synthesis and Conformational Study of Some Novel Acyl Hydrazone Based Molecular Hybrids of 1,4-Dihydropyridine and Pyrazole
Dr. Raj Kamal	9th National Seminar on "New Paradigm in Chemical Sciences: Synthetic and Analytical Perspectives-2017"	Punjabi University, Patiala Feb. 9-10, 2017	Presented Paper
	12th Conference on "Organics, Metallorganics and Thermodynamics"	Guru Jambheshwar University of Science and Technology, Hisar, November 17-18, 2017	Presented Paper
	Contemporary Facets in Organic Synthesis 2017	Department of Chemistry, IIT Roorkee, Uttarakhand, December 22-24, 2017.	Presented Short Invited Lecture

Dr. Rashmi Pundeer	International Conference on Drug Design	International Level, April 07-09, 2017	Biological and Computational Evaluation of Some New Pyrazole Derivatives
Dr. Sangeeta Saini	Professor Ram Chand Paul National Symposium on Current Advances in Chemical Sciences	Department of Chemistry, Panjab University, Chandigarh, February 24-25, 2017	Effect on the Reactivity of Small Gold Clusters Towards Molecular Adsorption of O <sub>2</sub> at Top-Sites
Dr. Ritu	International Conference on "Green Chemistry/Engineering and Technologies for Sustainable Development (GCET-2017)"	April 20-22, 2017	Tartaric Acid Assisted sol-gel Synthesis and Luminescent Properties of Dy <sup>3+</sup> doped CaZrO <sub>3</sub> Nanophosphors
	National Conference on "Organics Metallorganics and Thermodynamics (NCOMT-2017)"	Guru Jambheshwar University of Science and Technology, Hisar, November 17-18, 2017.	Enhanced Photoluminescent Properties of Eu(KA)3.2H <sub>2</sub> O by Replacement of Water Molecules By Ancillary Ligand
Dr. Sohan Lal	9th National Seminar on "New Paradigm in Chemical Sciences: Synthetic and Analytical Prespectives-2017	Punjabi University Patiala, February 09-10, 2017	Thermal Degradation Kinetics of Schiff Bases of Chitosan Derived from Hetero Aryl Aldehydes

### Noteworthy Achievements:

Prof. Kaza Somasekhara Rao Award for the Best Woman Scientist awarded to Prof. Kiran Singh in Chemistry in the 36<sup>th</sup> Annual National Conference of Indian Council of Chemists held at School of Chemistry, Andhra University, Visakhapatnam- 530003 (A.P.) on 26<sup>th</sup> -28<sup>th</sup> December, 2017.

World Eco Feminism Award-2017, SERI Kolkata (International) awarded to Dr. Ashu Chaudhary at World Clean Environment Congress-2017 held at India International Centre, New Delhi.

### FACULTY DEPARTMENT Chairperson

### SCIENCE MATHEMATICS Prof. Ram Karan

Professors

(i) Dr. Ram Karan, Ph.D., (ii) Dr. M.D.Sharma, Ph.D.  
(iii) Dr. Anil K. Vashisth, Ph.D., (iv) Dr. Vinod Kumar, Ph.D.

Associate Professors

(i) Mr. Dalbir Singh Hooda, M.Sc., (ii) Mrs. Sumitra Devi

**Students**

Class	Boys	Girls	Total
M.A. (P)	46	91	137
M.A. (F)	37	105	142
M.Phil.	02	07	09
<b>Total</b>	<b>85</b>	<b>203</b>	<b>288</b>

### Research Work Ph.D. Awarded

Name of Scholar	Title of Thesis	Name of Guide	Month & Year of Award
Deepmala	HIV Infection Dynamics under Multidrug Therapy in Vivo	Prof. M.D. Sharma	April, 2017

### Research Contribution of Teaching Staff

Name of Teacher	Topic/Field of Research	Journal/Book
Vinod K. Bhardwaj and S. Dhawan	Density by Moduli and Wijsman Lacunary Statistical Convergence of Sequences of Sets	J. Inequal. Appl., 2017, 25 (2017)
Vinod K. Bhardwaj, S. Dhawan and O. Dovgoshey	Density by Moduli and Wijsman Statistical Convergence of Sequences of Sets	Bull. Belg. Math. Soc. Simon Stevin, 24(3), (2017), 393-415
Vinod K. Bhardwaj , V Gupta and N Mani	Common Fixed Point Theorems Without Continuity and Compatible Property of Maps	Boletim da Sociedade Paranaense de Matematica, 35(2017) no. 3, 67-77
M.D. Sharma	Squirt-flow in Fluid-Saturated Porous Media: Propagation of Rayleigh Waves,	Trans. Porous Media; doi.org/10.1007/s11242-017-0987-9.
	Reflection-Refraction of Attenuated Waves at the Interface Between Thermoelastic Medium and Thermo-Poroelastic Medium	Waves in Random & Complex Media, DOI: 10.1080/17455030.2017.1370154
	Wave Propagation in Double-Porosity Dual-Permeability Materials: Velocity and Attenuation.	Adv. Water Res. doi.org/10.1016/j.advwatres.2017.02.016



M.D. Sharma	Inhomogeneous Propagation of Harmonic Plane Waves in Double-Porosity Dual-Permeability Materials.	Geophys. J. Int., Vol. 208, 737-747.
Anil K. Vashisth	A Higher Order Accurate Numerical Method for Singularly Perturbed Two Point Boundary Value Problems	Differential Equations and Dynamical Systems, 25(2), 2017, 267-285
	Inhomogeneous Waves in Porous Piezo-Thermoelastic Solids	Acta Mechanica, 228, 2017, 1891–1907
	Waves in Anisotropic Thermoelastic Medium with Phase Lag, Two Temperature and Void	Materials Physics and Mechanics, Accepted
	Scattering of Waves in a Layered Structure of Porous Piezoelectric Materials	Proceedings of the Sixth Biot Conference on Poromechanics, 2017

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Prof. M.D. Sharma	INSA Academic Exchange Programme	Institute of Geophysics, PRAGUE (Green Republic), September 01-18, 2017	Analytical/numerical Procedures Being Used in NDE through Surface Waves
Prof. Vinod Kumar	National Seminar on Recent Developments in Mathematics	Department of Mathematics, Kalindi College, University of Delhi, January 12-13, 2017	Some Aspects of Statistical Convergence
	International Conference in Approximation Theory	Georgia Southern University, Savannah, GA (USA), May 8-11, 2017	Korovkin Type Approximation Theorems Via F-Statistical Convergence
Prof. Anil. K Vashisth	National Seminar on Role Computer Science and Mathematics in Real World	D.A.V. College for Girls, Yamuna Nagar, February 17, 2017	Synergy of Mathematics and Computer Science
	National Seminar on Recent Developments in Mathematical Sciences	M. D. University, Rohtak, March 7-8, 2017	Decoupling of Waves in Smart Materials of Orthorhombic and Tetragonal Crystal Classes
	International Conference on Innovative Trends in Mathematics, Computer and Information Sciences	M. M. University, Mullana, March 9-10, 2017	Applications of Mathematics in Material Science

Prof. Anil. K Vashisth	UGC Sponsored National Conference on Emerging Interfaces in Fluid Dynamics and Optimization Techniques (NCEIFDOT – 2017)	Department of Mathematics, University of Rajasthan, Jaipur, March 25-26, 2017	Ultrasonic Waves in a Porous Piezoelectric Multilayered Structure Immersed in a Fluid
	International Conference on Mathematics and Applications (ICMA – 2017)	Ramjas College, University of Delhi, Delhi, April 26-28, 2017	Mathematical Modeling of Seismic and Heat Sources in a Multilayered Thermo Elastic Earth Model
	20th International Conference of International Academy of Physical Sciences on Recent Advances in Physical Sciences and Future Challenges	Osmania University, Hyderabad, July 14-16, 2017	Static Deformation of Thermo-elastic Stratified Earth due to Surface Loads and Heat Sources
	Invited lecture	Department of Mathematics, C.D.L. University, Sirsa, October 27, 2017	Introduction to Mathematical Aspects of Seismology
	21st International Conference of International Academy of Physical Sciences on Symbiotic Development of Mathematical, Physical, Chemical and Computational Sciences & Symposium on Recent Advances and Future Directions on Mathematics in Bio-Sciences	Guru Jambheshwar University of Science & Technology, Hisar, October 28-30, 2017	Anti-plane Symmetric Cracks in a Piezoelectric Layer with Pores
	DGHE Sponsored National Conference “Applications of Mathematics in Present Scenario”	Department of Mathematics, Maharaja Agrasen Mahavidyalaya, Jagadhri, November 10-11, 2017	Emerging Trends in Applied Mathematics
	UGC Sponsored National Conference on Emerging Strategies in Mathematics for Real World Problems & 21th Prof. P. D. Verma Memorial Lecture (NCESMRWP & PDVML-2017)	Department of Mathematics, University of Rajasthan, Jaipur, December 23-24, 2017	An Asymptotic Numerical Scheme for a Weakly Coupled System of Convection Dominated Differential Equations

**DEPARTMENT  
Chairperson**

Professor

Assistant Professors

**Students****STATISTICS & OPERATIONAL RESEARCH****Dr. M.S.Kadyan**

Dr. Indra Rani, Ph.D.

(i) Dr. M. S. Kadyan, Ph.D., (ii) Dr. Jitender Kumar, Ph.D.

<b>Class</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
M.Sc. 1 <sup>st</sup> Sem.	13	19	32
M.Sc. 3 <sup>rd</sup> Sem.	07	21	28
<b>Total</b>	<b>20</b>	<b>40</b>	<b>60</b>

**Research Contribution of Teaching Staff**

<b>Name of Teacher</b>	<b>Topic/Field of Research</b>	<b>Journal/Book</b>
Prof. Indra Rani	Queuing Analysis of Markovian Queue having Two Heterogeneous Servers with Catastrophes using Matrix Geometric Technique.	International Journal of Statistics and Systems Vol. 12(2), pp. 205-212 [2017]
Dr. M.S. Kadyan	Performance Analysis of a System of Non-Identical Units with Preventive Maintenance and Priority in Operation.	International Journal of Statistics and Reliability Engineering, Vol. 4(1), pp. 29-37, [2017].
	Availability based Operational Behaviour of B-Pan Crystallization System in the Sugar Industry.	International Journal of System Assurance Engineering and Management, Vol. 8 (2), pp. 1450-1460, [2017].
	Availability and Profit Analysis of a Feeding System in Sugar Industry.	International Journal of System Assurance Engineering and Management. Vol. 8 (1), pp. 301-316, [2017]
Dr. Jitender Kumar	Cost- Benefit Analysis of a Two-Unit Cold Standby System with Degradation, Priority and General Distribution of all Random Variables.	International Journal of Statistics and Reliability Engineering. Vol. 4(1), pp. 46-55 [2017]
	Fuzzy Reliability Analysis of a Pulping System in Paper Industry with General Distributions for All Random Variables.	Cogent Mathematics. Vol. 4, pp. 1-14 [2017].

**Lectures/Seminar/Conferences/Congresses etc. arranged in the Department**

Lecture delivered by Prof. Bhu Dev Sharma, former President (VC) Hindu University of America and Professor Clark Atlanta University Atlanta, GA, USA on dated 30.1.2017 on the topics "Generalized distances in coding over GF(Q)"; Department was organised Sawarna Jayanti Two Day National Workshop on Data Analysis Using SPSS from 20th to 21<sup>st</sup> March 2017; Lecture delivered by Prof. H.S.Jhajj, Department of Statistics, Punjabi University, Patiala on 21.04.2017 on the topics of "Development of Strategy for estimation of parameters in sampling Theory"; 1<sup>st</sup> Alumni meet "Smritigandh" was organized on 20<sup>th</sup> August, 2017.

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Dr. M.S. Kadyan	Faculty Development Programme cum Refresher Course on Recent Trends and Advances in Engineering and Technologies.	UIET, Kurukshetra University, Kurukshetra, January 13, 2017.	“Descriptive and Inferential Statistics using SPSS”.
	National Conference on Statistics and Optimization Techniques (NCSOT).	Department of Statistics M.D. University, Rohtak, February 11-13, 2017.	Behavioral Analysis of B-Pan Crystallization in the Sugar Industry.
Dr. Jitender Kumar	2017 IISA International Conference on “Statistics and Data Science for Better Life, Society and Science”.	Hyderabad International Convention Centre (HICC), Hyderabad (India), December 28-30, 2017.	Performance Measures of a Redundant System with Arbitrary Distributions of Random Variables
	Bilateral International Conference between Twenty-Sixth International Conference of Forum for Interdisciplinary Mathematics and Fourteenth International Symposium on Management Engineering.	Kitakyushu International Convention Center, Kitakyushu, Fukuoka, Japan, August 25-28, 2017.	Profit Analysis of a Gas Turbine System with General Distribution Using LR Type Trapezoidal Fuzzy Numbers
	International Conference on “Sarasvati River”.	Kurukshetra University, Kurukshetra, India during January 29-30, 2017.	Sarasvati : River and Goddess
	National Conference on “Statistics and Optimization Techniques (NCSOT)”.	Department of Statistics, M.D. University, Rohtak, February 11-13, 2017.	Analysis of a Parallel System with Degradation and General Distribution for Random Variables.

### Noteworthy Achievements:

#### Dr. Jitender Kumar

Awarded International Travel Grant under young scientists by Department of Science & Technology, Government of India to attend FIM&ISME2017: Bilateral International Conference between Twenty-Sixth International Conference of Forum for Interdisciplinary Mathematics and Fourteenth International Symposium on Management Engineering organized at Kitakyushu International Convention Center, Kitakyushu, Fukuoka, Japan during August 25-28, 2017.

### DEPARTMENT Chairperson

### GEOPHYSICS

**Prof. B.S.Chaudhary** from 23.12.2017  
**Dr. R.C.Patel** upto 22.12.2017

#### Professors

(i) Dr. S.S.Teotia, Ph.D., (ii) Dr. Dinesh Kumar, Ph.D.  
(iii) Dr. R.C. Patel, Ph.D. (iv) Dr. B.S.Chaudhary, Ph.D.

#### Assistant Professors

(i) Mrs. Manisha Sandhu, Ph.D. (ii) Dr. R.B.S. Yadav, Ph.D.,  
(iii) Mr. Sushil Kumar

#### Students

Class	Boys	Girls	Total
M. Tech 1 <sup>st</sup> Year	16	04	20
M. Tech 2 <sup>nd</sup> Year	13	03	16
M. Tech 3 <sup>rd</sup> Year	12	11	23
<b>Total</b>	<b>41</b>	<b>18</b>	<b>59</b>

### Research Work Ph.D. Awarded

Name of Scholar	Title of Thesis	Name of Guide	Month & Year of Award
Sanjeev Kumar	Remote Sensing and GIS Based Watershed Studies in Koshalya-Jhajhara Waterhed, North India	Prof. B. S. Chaudhary	July, 2017
Reeta Rani	Groundwater Studies in Hisar District of Haryana using Geoinformatics and Geophysical Resistivity Techniques	Prof. B. S. Chaudhary	July, 2017

### Research Contribution of Teaching Staff

Name of Teacher	Topic/Field of Research	Journal/Book
Prof. S.S. Teotia	Frequency Dependent Coda Amplitude Decays in the Region of Himalaya, India	Bulletin Seismological Society of America, 107(4), 1817-1827
Prof. R.C. Patel	Sedimentology, Geochemistry and Osl Dating of the Alluvial Succession in the Northern Gujrat Alluvial Plain (Western India) – A Record to Evaluate the Sensitivity of a Semiarid Fluvial System to the Climate and Tectonic Forcing Since the Late Marine Isotope Stage 3	Geomorphology, doi: 10.1016/j.geomorph.2017.08.046.
	Slope Stability Analysis of Balia Nala Landslide, Kumaun Lesser Himalaya, Nainital, Uttarakhand, India.	Journal of Rock Mechanics and Geotechnical Engineering, v. 9, pp. 150-158. ISSN: 1674-7755,
Prof. B. S. Chaudhary	Use of RS and GIS for Land Use/Land Cover Mapping in K-J Watershed, India	International Journal of Advances in Remote Sensing and GIS Vol. 5, No-1, pp. 85-92

Prof. B. S. Chaudhary	GIS Based Spatio-temporal Mapping of Groundwater Depth in Hisar District, Haryana State, India.	International Journal of Advanced Remote Sensing and GIS Volume 5, Issue 11 pp. 1971-1980 ISSN 2320-243
	GIS Applications in Morphometric Analysis of Koshalya-Jhajhara Watershed in North-western India	Journal of the Geological Society of India JGSI-D-15-00148R1 Vol. 88, PP. 585-592
Dr. Manisha Sandhu	Estimation of Site Amplification Functions for National Capital (Delhi) Region, India	Natural Hazard, 85(1), 171-195
Dr. R.B.S. Yadav	Site Classification of Indian Strong Motion Network Using Response Spectra Ratios	Journal of Seismology, DOI:10.1007/s10950-017-9714-9, pp. 1-20
	Enhanced Stress and Changes to Regional Seismicity due to the 2015 Mw 7.9 Gorkha, Nepal Earthquake on the Neighbouring Segments of the Main Himalayan Thrust.	J. of Asian Earth Sciences, 133, 46-55

### Lectures/Seminar/Conferences/Congresses etc. arranged in the Department

Brainstorming Workshop on "Thermochronology and Himalayan Tectonics" conducted by National Facility Lab (DST Funded), Department of Geophysics, Kurukshetra University Kurukshetra during March 27-28, 2017 coordinated by Prof. R.C. Patel.

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Prof. Dinesh Kumar	International Workshop on 'Shallow Subsurface Investigations for Resource Exploration and Hazard Estimation'	ISR, Gandhinagar, Gujarat, January 19-20, 2017	Evaluation of Seismic Hazard in the Central Seismic Gap Region From Moderate (M7) and Great (M8.5) Earthquakes Using Simulated Accelerograms
	54 <sup>th</sup> Annual Convention of Indian Geophysical Union on "Recent Advances in Geophysics with Special Reference to Earthquake Seismology"	CSIR-NGRI, Hyderabad, December 3-7, 2017	Modeling of Empirical Accelerogram of 2011 Sikkim, Himalaya Earthquake Mw 6.9 using Hybrid Technique
Prof. B. S. Chaudhary	Winter School on Application of Remote Sensing and GIS in Natural Resource Management	HRDC, AMU Aligarh, January 09, 2017	(i) Indian Space Programme: Present Developments and Future Scenario  (ii) Applications of Geoinformatics in Natural Resources Mapping and Management



Prof. B. S. Chaudhary	Invited Talk Under DRS-II, Department of Geography, AMU Aligarh, September 11, 2017	Eye in the Sky: Understanding Water Resources Scenario in India
	International DAAD Alumni Seminar GRITECHNICA 2017 “Food Security Increase by Precision Agriculture” Division of Agricultural Engineering, Georg-August-University of Goettingen, Germany, November 6-11, 2017	Applications of Geomatics for Identification of Groundwater Potential Zones in K-J Watershed, India
Dr. Manisha Sandhu	54 <sup>th</sup> Annual Convention of Indian Geophysical Union on “Recent Advances in Geophysics with Special Reference to Earthquake Seismology” CSIR-NGRI, Hyderabad, December 3-7, 2017	Estimation of Site Amplification Functions for National Capital (Delhi) Region, India
Dr. R.B.S. Yadav	54 <sup>th</sup> Annual Convention of Indian Geophysical Union on “Recent Advances in Geophysics with Special Reference to Earthquake Seismology” CSIR-NGRI, Hyderabad, December 3-7, 2017	Probabilistic Assessment of Earthquake Hazard in North East India and Adjoining Regions
	14 <sup>th</sup> Annual Meeting of Asia Oceania Geosciences Society (AOGS 2017), Singapore, August 5-11, 2017	Coulomb Stress Changes by the 2016 MW 6.7 Imphal, Manipur Earthquake and its Impact on Regional Seismicity In Northeast India
Mr. Sushil Kumar	National Seminar on “Role of Geophysics in Earth and Environmental Studies – Special Emphasis on Mineral Exploration” Osmania University, Hyderabad. March 16-17, 2017.	3D Topography Correction Applied to Magnetotelluric Data.
	54 <sup>th</sup> Annual Convention of Indian Geophysical Union (IGU)-2017 on “Recent Advances in Geophysics with Special Reference to Earthquake Seismology” CSIR-NGRI, Hyderabad, December 3-7, 2017	Topography Correction Applied to Magnetotelluric Data from Sikkim Himalayas

### Noteworthy Achievements:

Prof. B. S. Chaudhary participated in International DAAD Alumni Seminar AGRITECHNICA 2017 “Steigerung der Ernährungssicherung durch Precision Agriculture - Food Security Increase by Precision Agriculture” at Goettingen, University Germany and agricultural machinery event at Messe Hannover, Germany from Nov 6 to 19, 2017; Dr. RBS Yadav visited Academia Sinica, Taiwan under a joint International Research program between India and Taiwan during the period March 16-26, 2017 & participated in an international 54<sup>th</sup> Annual Meet of Asia Oceania Geosciences Society (AOGS 2017) in Singapore during 5-11 August 2017.

### DEPARTMENT Chairperson

### COMPUTER SCIENCE & APPLICATIONS

Dr. Rakesh Kumar from 12.06.2017

Dr. Rajender Nath upto 11.06.2017

#### Professors

(i) Dr. R.K.Chauhan, Ph.D., (ii) Dr. (Mrs.) Shuchita Upadhyaya, Ph.D.,  
(iii) Dr. Rajender Nath, Ph.D. (iv) Dr. Rakesh Kumar, Ph.D.

#### Associate Professor

Dr. Pardeep Kumar, Ph.D.

#### Assistant Professors

(i) Dr. Chander Kant, Ph.D., (ii) Dr. Ramesh Kait, Ph.D., (iii) Ms. Monika  
(iv) Dr. Kanwal Garg, Ph.D., (v) Dr. Sanjay Tyagi, Ph.D.,

#### Students

Class	Boys	Girls	Total
M.C.A.-1st Year	21	55	76
M.C.A.-2nd Year	48	64	112
M.C.A.-3rd Year	45	71	116
M.Tech.(CSE)-1st Year	01	05	06
M.Tech.(CSE)-2nd Year	02	18	20
M.Sc.(Com. Sc.) Software-1st Year	06	27	33
M.Sc.(Com. Sc.) Software-2nd Year	10	30	40
<b>Total</b>	<b>133</b>	<b>270</b>	<b>403</b>

### Research Work Ph.D. Awarded

Name of Scholar	Title of Thesis	Name of Guide	Month & Year of Award
Ravi Bhushan	"Information Retrieval Using Web Mining Techniques"	Prof. Rajender Nath	March, 2017
Karambir	"Analyzing the Effect of Component Based Approach on Software Engineering by Developing Simulator"	Dr. P.K Suri (Retd.)	March, 2017
Ruchika Yadav	"Design of an Improved Multiple Level Association Rule Algorithm for Discovery of Frequent Patterns"	Dr. Kanwal Garg	July, 2017

### Research Contribution of Teaching Staff

Name of Teacher	Topic/Field of Research	Journal/Book
Dr. R. K. Chauhan	A Survey on Comparisons of Cryptographic Algorithms Using Certain Parameters in WSN	International Journal of Electrical and Computer Engineering, 7(4), ISSN: 2088-8708, pp. 2232-2240, 2017.
	Review on Security Attacks and Countermeasures in Wireless Sensor Networks	International Journal of Advanced Research in Computer Science, 8(5), ISSN: 0976-5697 pp.1275-1284, 2017.

Dr. R. K. Chauhan	Mining Query Log to Suggest Competitive Key Phrases for Sponsored Search Via Improved Topic Model Using ITCK Method	International Research Journal of Engineering and Technology (IRJET), 4(7), ISSN: 2395-0056. pp.1541-1546, 2017.
Dr. Shuchita Upadhyaya	Hybrid Multi-commodity-Based Widest Disjoint Path Algorithm (HMBWDP)	International Journals of Advanced Research in Computer Science and Software Engineering, Page 817-820. ISSN: 2277-128X (Volume-7, Issue-6)
	Multi-Objective Soft Computing Techniques for Dynamic Deployment in WSN	International Research Journal of Engineering and Technology (IRJET); pp. 1516-1523; Volume: 04 Issue: 07   July - 2017 www.irjet.net p-ISSN: 2395-0072; e-ISSN: 2395-0056
	Long Tail Keyword Suggestion for Sponsored Search Advertising	International Research Journal of Engineering and Technology (IRJET); pp. 1407-1413; Volume: 04 Issue: 07   July - 2017 www.irjet.net p-ISSN: 2395-0072; e-ISSN: 2395-0056
	Optimum Relay Node Selection in Clustered MANET	International Research Journal of Engineering and Technology (IRJET); pp. 1558-1563; Volume: 04 Issue: 07   July - 2017 www.irjet.net p-ISSN: 2395-0072; e-ISSN: 2395-0056
	Performance Interpretation of k-Anonymization Algorithms for Discernibility Metrics	International Journal of Computer Sciences and Engineering, Volume-5; Issue-11; pp. 74-78, November 2017; ISSN : 2347-2693(E)
	Fuzzy Based Multi-Metric Path Ranking Scheme for Multipath Routing	International Journal of Advanced Research in Computer Science, Volume 8, No. 8, September-October 2017 ; pp. 407-411; ISSN No. 0976-5697
Dr. Rajender Nath	Critical Analysis of Different Min-Min Task Scheduling Approach for Cloud Environment	International Journals of Advanced Research in Computer Science and Software Engineering (IJARCSSE), Vol-7, Issue-6, pp: 706-711, June 2017. ISSN: 2277-128X
	An Improved De-Duplication Technique for Small Files in Hadoop	International Research Journal of Engineering and Technology (IRJET), Vol-4, Issue-7, pp: 2040-2045, July 2017. ISSN: 2395-0056
	A Secure One-way Hashing Technique for Data Integrity in Cloud Computing	International Journal for Advanced Studies in Computer Science and Engineering, Vol-6, Issue-11, Nov. 2017.

Dr. Rajender Nath	A Secure and Flexible One Way Hash Function for Data Integrity Verification in Cloud Computing Environment	3rd International Conference on Next Generation Computing Technologies (NGCT 2017), by University of Petroleum and Energy Studies, Dehradun, India on 30 – 31 Oct 2017.
Dr. Rakesh Kumar	Swarm Intelligence Meta-heuristics: A Survey	National Conference on “Future Innovations in Computing Technologies & Machine Learning” 21 November 2017 at DCSA, MDU, Rohtak
	Assessment of Genetic Algorithm Using Mendel's Principles	International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCEMS 2017) 27-28 January, 2017, organized by SN Education Society, India and URGCEE, USA at Jain College of Engineering, Balgavi, India
Dr. Pardeep Kumar	Performance Interpretation of k-Anonymization Algorithms for Discernibility Metric	International Journal of Computer Sciences and Engineering(IJCSE), Vol. 5, Issue 11, Nov. 2017, E-ISSN: 2347-2693, pp. 74-78
	Fuzzy Based Multi-Metric Path Ranking Scheme for Multipath Routing	International Journal of Advanced Research in Computer Science(IJARCS), Volume 8, No. 8, September-October 2017, ISSN No. 0976-5697, pp. 407-411
	Performance Analysis on Energy Efficient Protocols In Wireless Sensor Networks	International Journal of Advanced Research in Computer Science (IJARCS), Volume 8, Issue 5, May-June 2017, ISSN: 0976-5679, pp. 1862-1869
	A Review on Cloud Security and its Issues using various Symmetric Key Encryption Algorithm	International Journal of Advanced Research in Computer Science (IJARCS), Volume 8, Issue 5, May-June 2017, ISSN: 0976-5679, pp. 1858-1861
	Investigating Face Recognition Techniques for PCA and BPNN	International Journal of Advanced Research in Computer Science (IJARCS), Volume 8, Issue 5, May-June 2017, ISSN: 0976-5679, pp. 1246-1249
	Privacy Preserving and Ownership in Cloud Computing Using Symmetric Key Encryption	International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 07, July -2017, e-ISSN: 2395-0056, p-ISSN: 2395-0072, pp. 1586-1591
	Energy Efficient Clustering Protocol for Wireless Sensor Networks Using Particle Swarm Optimization Approach	International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 07, July -2017, e-ISSN: 2395-0056, p-ISSN: 2395-0072, pp. 838-846

Dr. Pardeep Kumar	Technique to Hybridize Principle Component and Independent Component Algorithms using Score Based Fusion Process	International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 07, July -2017, e-ISSN: 2395-0056, p-ISSN: 2395-0072, pp. 1992-1996
	Deployment and Service Model Challenges in Cloud Computing Environment	International Journal of Current Engineering And Scientific Research ( IJCESR), ISSN (Print): 2393-8374, (Online): 2394-0697, Volume 4, Issue 10, Pages: 77-82, Oct 2017
	Workflow Scheduling for Scientific Application in Homogeneous Cloud Environment	International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), ISSN: 2277-128X, Volume 7, Issue 7, Pages: 137-140, July 2017
Dr. Chander Kant	A Novel Approach to Address Sensor Interoperability using Gabor Filter"	Oriental Journal of Computer Science & Technology (ISSN : 0974)
	Minimizing Sensor Interoperability Problem In Fingerprint Using Euclidean Distance"	International Journal of Computer Science & Communication(IJCSC) (ISSN: 0973)
	An Approach to Enhance Security of Biometric System Using LSB Watermarking"	International Journal of Advanced Research in Computer Science (ISSN : 0976)
	Enhancing the Security of Biometric System using DWT Watermarking"	International journal of Computer Science and Communication (IJCSC) (ISSN: 0973)
	A Novel Approach to Improve the Biometric Security using Liveness Detection"	International Journal of Advanced Research in Computer Science (ISSN : 0976)
	A Multimodal Approach to Raise the Security of Biometric System	International Journal of Computer Science and Communication(IJCSC) (ISSN: 0973)
	A Multimodal Approach to Raise The Security of Biometric System"	International Journal of IT & Knowledge Management (IJITKM) (ISSN: 0973)
	A Novel Approach to Improve the Biometric Security Using Liveness Detection"	International Journal of Computer Science and Communication (ISSN: 0973)
	Minimizing Sensor Interoperability Problem Using Euclidean Distance"	International Journal of Computer Science & Communication (IJCSC), (ISSN: 0973)
	Addressing Biometric Sensor Interoperability using Gabor Filter"	International Journal of IT & Knowledge Management(IJITKM), (ISSN 0973)

Dr. Chander Kant	A Novel Approach to Secure Biometric Template with Steganography"	International Journal of Advanced Research in Computer Science, (ISSN : 0976)
Ms. Monika	A Novel de Routing Scheme for Vehicular ad-hoc Network	International Research Journal of Engineering and Technology (IRJET)
	Preventing Buffer Overflow Using Linear Congruential Generator	International Journal of IT & Knowledge Management
	Database Security: Attacks and Techniques	International Journal of Scientific & Engineering Research
	A Review of Image Steganography Techniques: Development Trends to Enhance Performance	International Journal of Advanced Research in Computer Science
	A Secure Steganography Technique Using MSB	International Journal of Emerging Research in Management & Technology
	Various Classifiers with Optimal Feature Selection for Email Spam Filtering	International Journal of Computer Science & Communication
	A Comprehensive Survey of VANET Architectures and Design	International Journal of Advanced Research in Computer Science
Dr. Kanwal Garg	Proposed Method for Workload Balancing Using Grid Computing	International Education and Research Journal, Volume 3, Issue 5, May 2017
	Execution of Association Rule Mining with Data Grids in Weka 3.8	International Educational Applied Scientific Research Journal (IEASRJ), Volume 2, Issue 5, May 2017
	Improving Query Processing Time of OLAP Cube Using OLAP Operations	International Research Journal of Engineering and Technology (IRJET), Volume 4, Issue 8, August 2017
	Efficient Information Retrieval using Multidimensional OLAP Cube	International Research Journal of Engineering and Technology (IRJET), Volume 4, Issue 8, August 2017
	Perspective Challenges & Proposed Solution for PPDM using Data Mining Techniques	International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 5, Issue 8, August 2017, pp. 2093-2097.
	A Novel Filtering Based Scheme for Privacy Preserving Data Mining	International Research Journal of Engineering and Technology (IRJET), Volume 4, Issue 8, August 2017



Dr. Sanjay Tyagi

Deployment and Service Model Challenges in Cloud Computing Environment

International Journal of Current Engineering and Scientific Research (IJCESR), ISSN (Print): 2393-8374, (Online): 2394-0697, Volume 4, Issue 10, Pages: 77-82, Oct 2017

Workflow Scheduling for Scientific Application in Homogeneous Cloud Environment

International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), ISSN: 2277-128X, Volume 7, Issue 7, Pages: 137-140, July 2017

Cost-Based Task Scheduling in Cloud Computing

International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume 04, Issue 07, Pages: 694-699, July 2017

Hybrid of Ant Colony Optimization and Gravitational Emulation Based Load Balancing Strategy in Cloud Computing

International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume 04, Issue 07, Pages: 1236-1240, July 2017

Scheduling of Heterogeneous Tasks in Cloud Computing using Multi Queue (MQ) Approach

International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume 04, Issue 07, Pages: 1772-1778, July 2017

HYMM: A New Heuristic in Cloud Computing

International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume 04, Issue 05, Pages: 3520-3526, May 2017

Different Load Balancing Algorithms in Cloud Computing - A Review

International Journal of Engineering Science and Technology (IJEST), Volume 9, Issue 5, ISSN No. 0975-5462, pp. 399-402, May 2017

Task Scheduling in Public Cloud: A Review

International Journal of Engineering Science and Technology (IJEST), Volume 9, Issue 5, ISSN No. 0975-5462, pp. 403-407, May 2017

A Comparative Analysis of Min-Min and Max-Min Algorithms based on the Makespan Parameter

International Journal of Advanced Research in Computer Science (IJARCS), ISSN No. 0976-5697, Volume 8, No. 3, Pages: 1038-1041, March – April 2017.

Dr. Sanjay Tyagi	A Survey on Heuristic Approach for Task Scheduling in Cloud Computing	International Journal of Advanced Research in Computer Science (IJARCS), ISSN No. 0976-5697, Volume 8, No. 3, Pages: 1089-1092, March – April 2017.
	Cost-Based Optimized Task Scheduling	Proceedings of 2nd National Conference (TEQIP-II Sponsored) on Recent Trends in Computing and Communication Technologies (RCCT-2017), DCRUST, Murthal, Pages: 217-219, 2-3 March, 2017.

### Lectures Delivered in Seminar/Conferences/Congresses etc. of attended by the Department Teachers Outside the Department

Name of Teacher	Name of Conference/ Seminar	Place and Date	Topic of Lecture
Dr. Shuchita Upadhyaya	Invited talk in 2nd International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCESM 2017)	Jain College of Engineering, Belagavi, January 27-28, 2017	"Big Data/Data Mining"
Dr. Rajender Nath	Innovation & Trends to Support Make in India	N.C. College of Engineering, Israna, Panipat, May 25-26, 2017.	Cloud Computing
	Recent Trends in Computing and Communication Technologies (RCCT-2017)	DCRUST Murthal, March 02-03, 2017.	Research Methodology
	Hybrid Cloud Computing & IoT	Guru Nanak Khalsa College, Yamuna Nagar (Haryana), September 16, 2017. (UGC Sponsored)	IoT
	Invite Talks	BPS Mahila Vishwavidyalaya, Khanpur Kalan Sonipat, March 24, 2017.	Writing an Effective Research paper
Dr. Rakesh Kumar	Guest Lecture	Govt. College, Jagadhari, October 14, 2017	Carreer and Counselling
	Keynote Address in Workshop on Hybrid Cloud Computing & IoT	Guru Nanak Khalsa College, YamunaNagar, September 16, 2017	Cloud Computing