



**AMITY UNIVERSITY**  
HARYANA

ESTABLISHED BY THE HARYANA ACT NO.10 OF 2010 AND UGC RECOGNISED • LOCATED AT GURGAON (MANESAR)

# Directorate of Research and Publications

## DRP-GAZETTE

Inaugural Issue  
Sept. 2014

Volume 1, Issue 1

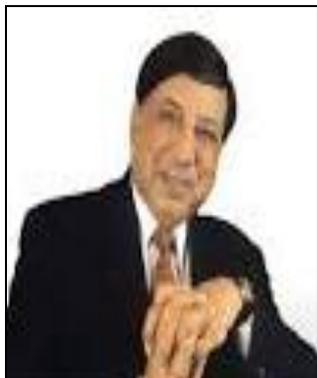


---

Amity University Haryana: Amity Education Valley, Gurgaon, Haryana

Tel: 0124-2337015/16

## ***Acknowledgement***



***Hon'ble Founder President, Dr. Ashok K. Chauhan***

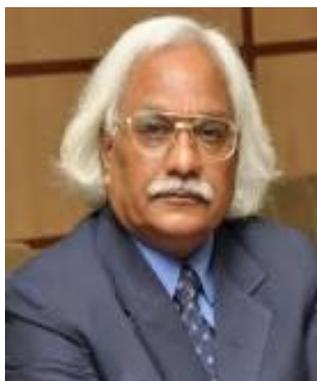
Our Hon'ble Founder President, Dr. Ashok K. Chauhan, Educationist, philanthropist believes that research and innovation is the crux of any nation's development. Under his visionary leadership and guidance Amity University Haryana has developed as a Research and Innovation driven university. According to Dr. Chauhan there is no dearth of talent in our country but the need is to provide suitable platforms to identify the talents and at the same time education institutes should put thrust on research and innovation activities. With his constant encouragement Amity is at the forefront of cutting edge technology and scientific research. It has set up a strong R&D infrastructure and has created numerous facilities and labs with modern state of the art equipment. Today, Amity is the hub of scientific learning and high-end research and with the continued mentorship of Hon'ble Founder President Amity will continue achieving breakthroughs and excellence in the area of research and innovation.



***Hon'ble Chancellor, Mr. Aseem Chauhan***

The MASHAL (torchlight) of vision and mission set up by our Hon'ble Founder President is very effectively carried by our young and dynamic Hon'ble Chancellor, Mr. Aseem Chauhan. He is a driving force behind all ventures and is well known for his innovative thinking. What sets Mr. Aseem Chauhan in the mould of a leader is his defining visions and approach to doing things. It is no wonder that he has been instrumental in taking Amity to unprecedented heights and is busy with pan India expansions of the institution. His skill in incubating and mentoring ventures is fast becoming legend, but his joy lies in creation.

## *Message*



*Prof. P. B. Sharma, Vice Chancellor, AUH*

It gives me immense pleasure to note that the Directorate of Research and Publications (DRP) of the Amity University Gurgaon is bringing out the DRP-Gazette to widely disseminate the research activities and programmes being pursued at our prestigious University. I am also happy to note that the DRP-Gazette is carrying the latest research developments in the diverse areas. Universities worldwide are judged on their contributions to knowledge creation, technology development, innovation and industry readiness of their graduates. Sponsored R&D forms a major pillar of strength of a university and so is its quest for innovation. I am indeed happy to note that here at AUH Gurgaon we are engaged in R&D in areas of vital interest to industry and society. It is also a matter of great satisfaction that in our university research and innovation culture has percolated to the UG levels. We are committed creating an interdisciplinary mindset for Re-search and Innovations. May I therefore invite the innovative and creative minds of the faculty and inspired students to engage themselves in accelerating the pace of industry and society relevant research and innovations at the university. I wish the publication great success.



*Prof. Padmakali Benerjee, Pro-Vice Chancellor, AUH*

The Directorate of Research and Publications (DRP) is committed to promote ICT driven technology and information dissemination system for quick real time reference and is a warehouse of all research at Amitykeeping pace with the new knowledge creation. DRP is committed to delivering and showcasing innovative research initiatives including publications, projects, patents at AUH. DRP is nodal centre for designing, maintenance and updating all the research activities. The Directorate also provides development programmes for faculties and researchers providing publicity support within the University as well as representation outside. The team is committed to promote and achieve excellence

## *Establishment of DRP*

The Directorate of Research & Publication was constituted in Jan, 2014 for providing an effective direction to the research activities of the Amity University Haryana, through its teaching departments, Recognized Research Centres. The DRP has to promote, administer, supervise and guide researchers, apart from ensuring proper implementation of research projects and mobilization of research funds to the university. Directorate of Research and Publications will give graduate, post graduate, research students a sense of belonging to a meaningful scholarly community; Co-ordinate and Administer all research; Advise on research priorities geared to the fulfilment of National Development professional objectives; Work as an outreach providing a link or bridge between the University and the World of work in identifying research and courses that are relevant to the needs of industry, commerce, and professions etc.

## *From the Editor's Desk*

Welcome to the maiden editorial of DRP-Gazette from Amity University Haryana. With advent of recent advancements in Science & Technology, we have already entered into a time zone where Research and innovation will contribute directly to our level of prosperity and the well-being of individuals and society in general. Considering the foresightedness of the Vision and mission our Hon'ble Founder President, it is our moral duty to disseminate the passion for high quality research among our Amity fraternity. Despite the fact that breakthroughs in research can now be accessed easily by few clicks, the need for a DRP-Gazette from Amity University Haryana is to gratify our own necessity. The aim is to provide a common stage so that the researchers, faculties can share their views and aspiration about research. This will also be helpful in arousing the research interest among students who wishes to pursue research as their carrier. This will enlighten them with the recent R&D developments of our University from which they might not be aware. This gazette will share the details of various Research and innovation process going on at every Institute and department of AUH and hence will open gates for interdisciplinary research as well. Furthermore, this will also feature the details of various research fundings, publications and conferences.

The launching of this DRP-Gazette on the ' Day of Innovation, September 28' is another small step towards fulfilling the dream of Our Hon'ble Founder President, Dr. Ashok K. Chauhan and Hon'ble Chancellor, Mr. Aseem Chauhan.

*Dr. Saif Hameed  
Dr. Zeeshan Fatima  
Editors, DRP-Gazette*

## *Research and Innovation at Amity University Haryana*

### *A WALK THROUGH*

#### *✚ Research and Innovation in Amity School of Biotechnology*

Biotechnology is a frontline area of science with immense potential for the benefit of the human kind. Amity Institute of Biotechnology (AIB) at AUH has given a new impetus to the development of the field of modern biology and biotechnology in India. In a span of just four years of its existence, the institute has promoted and accelerated the pace of development of biotechnology quite efficiently. Through several R&D projects, demonstrations and creation of infrastructural facilities a clear visible impact of this field has been seen. The department has made significant achievements in the growth and application of biotechnology in the broad areas of agriculture, health care, animal sciences, environment, and industry. The impact of the biotechnology related developments in agriculture, health care, environment and industry, has already been visible and the efforts are now culminating into products and processes. Reasonable no of research publications, Ph.D. students and development of well-equipped labs including a Biosafety Laboratory, can be considered a modest beginning. Institute's vision is to attain new heights in Biotechnology research, shaping Biotechnology into a premier precision tool of the future for creation of wealth and ensuring social justice especially for the welfare of poor. Products and processes resulting from increasing knowledge generated through Life Science Research and application of techniques of Biotechnology will profoundly influence the existing paradigm of healthcare, agriculture, conservation and utilization of bio resources, production and manufacturing processes and reservation of environment.

#### *✚ Research and Innovation in Amity School of Engineering and Technology*

Amity School of Engineering and Technology has wide spectrum of research in the fields of Electronics, Electrical, Biomedical, Civil, Mechanical, Aerospace and Computer Science. The thrust areas of the school are Image Processing, Cloud Computing, Communication, Fluid Mechanics, Water Technology, Artificial Intelligence and soft Computing. ASET has published more than 100 papers in reputed International and national Journals. It has Robotics centre, Project and innovation lab other than the basic labs for the advance research. To bridge the gap between the industry and academia, researches are working on patents and advanced research projects also.

#### *✚ Research and Innovation in Amity School of Architecture and Planning*

ASAP Department is actively working in the direction of its advancement and knowledge accrual through research in the various fields of Architecture and Planning. Although, the department is new, its dynamic configuration is very optimally exploiting the available resources within its ambit towards the above mentioned area. Department has been very aggressive in its manner for the acquisition of required resources to accelerate the improvement of research processes. Some of the sub-fields in which ASAP Department has shown some research related progress can be mentioned as- Sustainability, Climatology, Solid Waste Management, Housing, Urban Planning, Transportation etc. This progress can further be resonated with the help of interdisciplinary cooperation and coordination which would be one of the immediate steps in the department for it's all over decision making machinery.

### *Research and Innovation in Amity School of Nursing*

Evidence based Practice ensures clinical decisions based on best evidence available, thereby improving quality of care as well as quality of life of the patients. Increased number of well-designed randomized controlled trials in nursing fields is available in literature. There is need for implementation of research in practice to improve effectiveness and efficiency. Health professions commission report calls for evidence based nursing practice in giving accreditation to Hospitals. Joint Commission on accredited Health Care Organization (JCAHO) makes it mandatory to implement evidence-based standard of care. Nurses can foster advanced practice roles with development of prescriptive power, only if they make evidenced based diagnostic decisions. In India, there is little research culture in health care and particularly in nursing. Nursing research is the need of the hour. At Amity University, we aspire to conduct various projects in near future on relevant thrust areas to name a few; Evaluation of burden and management of chronic diseases in elderly; Health profile of the elderly in India; Rehabilitation in neurology patients; Preventive cardiology; Rehabilitation in congestive heart failure patients; Epilepsy in pregnancy etc. We intend to take projects from various national and International funding agencies, particularly, ICMR and Wellcome trust.

### *Research and Innovation in Amity School of Languages*

Translation of literary works, doing a linguistic or thematic study of literary works have traditionally remained the main focus of interest in the field of languages. In the past three decades translation studies have undergone a paradigm shift breaking away from the equivalence-based research and translation is no longer considered as a simple process of language transfer. Comparative literature is another fertile ground for research. It is a highly enriching research experience especially when it involves literary works from two different cultures which are apparently poles apart. There are different lines of research related to the teaching / learning of foreign languages. Research could bring in concrete responses to questions that arise while teaching foreign languages. They include learning the phonology of a foreign language, the construction of oral discourse as well as the convergence of oral and written. The acquisition of linguistic competence by learners, factors that favor or hinder learning the language for Indians could also be the subject of empirical research. A collaborative research undertaken by the foreign language teachers combining theories, methods and different points of view in didactics of foreign language, could provide the ways and means to enable more effective teaching of vocabulary and grammar and evolve a more innovative methodology of teaching. In any area of research ideas develop through individual or collective efforts. However innovative ideas are bound to come through collaborative research. It is a collaborative research that promotes dialogue and exchange of ideas. In a joint engagement the ideas are contested, argued over and consequently a better understanding ensues. Such dialogical phenomenon provides the necessary stimulus and impetus for the research. Faculty is involved in following research areas: Indian Writing in English: As the scope of Indian Writings in English has broadened from purely Indian to the global and transnational ethos, varied spectrums have emerged which include areas like Indian Literature in English Translation, Literature of the Indian Diaspora, Dalit writings in English and Communal Riots. Comparative Literature: The discipline of Comparative Literature has been making remarkable progress in contemporary times. About 7 faculty members are involved in research in the areas of Spanish, Chinese, American and Indian Literature for the award of M.Phil. and D.Phil degree.

## *Research and Innovation in Amity Medical School*

Amity Medical School at Amity University Gurgaon was established in 2011 with an aim to fill the huge gap between availability and requirement of trained manpower in medical and allied health sciences and contribute significantly towards achieving the national aim of "Health for All". The subjects chosen initially for this purpose are Hospital Administration, Public Health, Optometry, Audiology and Speech Language Pathology, Dietetics and Applied Nutrition and Clinical Research. Subjects in pipeline are Medical Lab Technology, Physiotherapy and so on. The initiation of the Medical School is a precursor to the establishment of a Medical College and a Hospital in the near future. The well equipped and functional Clinics of Eye and Audiology and Speech Therapy are proving to be a boon to the people of the surrounding villages who can now avail the best diagnostic facilities besides free consultations and treatment almost at their door steps.

The Amity Medical School has also launched a Mission for Eradication of Preventable Blindness amongst the population residing in this area by organizing Eye Camps in the villages in collaboration with various NGOs and Eye Hospitals to treat Glaucoma and Cataract which are the main causes of Preventable Blindness besides correction of Refractive Errors.

The aim of the Institute is to provide the highest level of education combined with practical exposure to the students in various disciplines to provide them the best career opportunities in their chosen field.

## *Research and Innovation in Amity School of Applied Sciences*

The Amity School of Applied Sciences seeks to be one of the foremost distinctive in higher education and scientific research domestically, regionally and internationally. ASAS works for providing the best learning, teaching and research opportunities to students and academicians, which keep pace with international standards, offering vital service to mankind globally in education, research, in addition to creating a healthy and supportive educational milieu, which preserve the ASAS advanced standing as a haven for science. ASAS is also working for strengthening participation and collaboration with educational and research institutions as well as institutions domestically, regionally and international. Main Focus areas of research in Departments of ASAS i.e. Chemistry, Physics, Maths, Environmental Sciences and Solar and alternate energy are Organic, Inorganic and Physical Chemistry, Novel methods for synthesis of Organic Molecules, Pharmaceuticals, Drug Design and Delivery, Material Chemistry, Molecular Biology, Biochemistry, Protein purification isolation and docking studied, Chitosan based Applications, Nanoparticles for Solar Cell Applications, Biofuels, Organometallic Chemistry, Catalysis and material Science, Forensic Sciences, Theoretical Physics: Quantum Optics, Quantum Computation, Laser Physics, Astronomy, Astrophysics and Cosmology, High Energy Physics, String Theory Experimental: Nanotechnology, Spintronics, Thin Films, Superconductors, Carbon Nanotubes, Nanoparticles in Drug delivery, Material Science, Solar PV Energy Efficiency and Management, Energy Material Dev., TEM; Probability Theory, Numerical Analysis, Operational Research, Optimization, Graph Theory, Atmospheric Sciences, Renewable and Sustainable Energy, Arsenic Contamination in Ground Water, Study of pulp bleaching effluents, Analysis of Glacio-Marphological Features using Remote Sensing Techniques, Nutrients in catchment area, Anaerobic digestion of organic material, Renewable and Sustainable Energy, Environmental Preservation and Protection and Climate Change. The ASAS has made significant achievements in the growth and application of above mentioned broad areas of research. Reasonable number of research publications, Foreign visits of faculty as visiting scientists, good number of Ph.D. students and development of well-equipped labs of Chemistry, Physics Environmental Sciences, Solar and alternate energy, can be considered a modest beginning. Institute's vision is to attain new heights in research, and shaping all the departments of applied Sciences into a premier precision tool of the future for creation of wealth, knowledge & spreading sciences to common man of India.



## *Research and Innovation at Amity Business School*

Research & Innovation is hallmark at ABS which is always an integral part of teaching and learning process of the school. Most of the faculty members are Ph.D. and remaining are pursuing their research work. The research interests of the faculties are from various areas of business & management. ABS offers full time as well as part time Ph.D. programs in various functional areas of management including finance, marketing, operations, human resource, international business and to name a few. The research focus of scholars at the school is on identifying and providing business solutions to recent business issues challenges.

Faculty development programs (FDP) are always encouraged at ABS. The sole objective of promoting FDP is to keep faculty members updated with recent updates in business management area. Faculties are always provided the opportunities to attend FDP either in-house or externally organized. This year also, FDP on “Research Methods and Data Analysis Tools” is being organized in the department from 15-16 November, 2014. To promote research, conferences and seminars are being organized every year. Participants from across the globe with affiliations from reputed universities presented their papers at these forums and shared their innovative researches and ideas. In order to disseminate the quality research work, ABS publishes its own bi-annual refereed journal with the name “**Amity Management Analyst**”. The journal has attracted quality works in the field of management education in a very short span of time.

To encourage students towards innovation and new thinking, the school is following ‘innovative teaching pedagogies’ which includes live projects, case studies and business simulations. The case analysis helps students to know different management issues and challenges that they would come across in real business life at work and the probable solutions they would have taken being a manager under the given circumstances. Students also get opportunity to work on the live-projects of different companies. Students have worked on live projects with companies like Nestle, Harley Davidson etc. To increase managerial capabilities in budding managers, practice Research & Outreach centers (PRO) has been established. There are two centers under this umbrella: CFA (Centre for Financial Analytics) and Centre for BRICS studies. In CFA, members learn skill of financial decision making and different financial software to provide error free solutions. To make students industry ready, these centers help students by providing opportunity to interact with industry personnel and experts of their domains. Corporate connect, a weekly activity provide an opportunity for students to interact with corporate leaders and is a platform for industry integration.

To provide solutions to societal business problems and engage in community services has always remained a priority area for ABS. Rural Innovation and Social Entrepreneurship (RISE) is a centre under which the school along with its faculties and students try to identify social issues in nearby localities and provide viable business solutions. Two initiatives under this umbrella are Mini-Sanitary Napkin Machine and Bio-Mass Gasifier System and Engine. Mini-Sanitary Napkin Machine is a technology to prepare the low cost sanitary napkin with the same materials as used in the by cutting down the cost in production. It requires 3 to 4 manpower to produce a pad in 2 min Bio-Mass Gasifier System and Engine is a mechanism with the help of which any bio-mass waste/residue can be converted into inflammable gas (producer gas) which in turn can be used to run an engine, stoves and furnace etc.

In nut-shell, innovation is practised in over all academic processes of the school to impart impart knowledge, skills, attitude, imbibing values and inculcate entrepreneurial ability for the holistic development of the students to the satisfaction of all concerned stakeholders.

## Research Fundings at AUH

Year wise	Institute	Name of PI & Co PI	Name of the project	Name of the funding agency	Total grant received
28/11/2011	AIB, AUH & AU-UP	Dr. Kuldeep –PI Dr. Vivek Ballyan- Co-PI	Establishment Plant Health	Horticulture Mission, Haryana Govt.	Rs.10,00,000
31/3/2012	AIB, AUH & AU-UP	Dr. Kuldeep –PI Dr. Vivek Ballyan- Co-PI	Establishment of leaf tissue analysis lab	Horticulture Mission, Haryana Govt.	Rs.6,75,000
26/07/2012	AIB,AUH	Dr.Zeeshan Fatima-PI	Antifungal potential of natural flavonoids: Hesperidin and Diosmin against Candida albicans.	SERB –DST Not Activated	Rs.17,60,000
10/09/2012	AIB,AUH	Dr.Saif –PI	To decipher therapeutic potential of Sesamol and Perylyl alcohol as antifungal agents against Candida albicans.	SERB-DST	Rs.16,20,000
5/10/2012	AIB,AUH	Dr.Zeeshan –PI	Identification of Novel drug targets – individual lipid component(s) or functional links related to drug resistance and virulence.	SERB-DST	Rs.18,18,000
5/10/2013	AIB,AUH	Dr.Gargi Baggchi, PI	Role of Protein kinase A signaling in androgen mediated gene response	DBT Bio-CARE' Women Scientist Scheme (RGO)	Rs. 58,00,000
12/10/2013	AIB,AUH	Dr.Zeeshan Fatima PI, Dr.Saif Hameed-CoPI	To study the effect of iron homeostasis on Mycobacterium tuberculosis drug extrusion pumps conferring Multidrug-resistance	BRNS/BARC	Rs. 22,46,250
13/09/2013	ASAS,AUH	Dr.Shaili Malik-, PI	Co2 by culturable and non culturable (Metagenomic Approach) microbial community and role of microbe for calcite and biofuel production	SERB-DST	Rs. 20,00,000
01/04/2014	AIB,AUH	Dr.Dinesh – Yadav, PI	Rice genome mining for the identification of novel GPCRs and decipher their role in abiotic stresses	SERB-DST	Rs 25,00,000
01/04/2014	ASET,AUH	Dr.Raghav Raghav (Co PI) AUG, Dr. Nadeem Khalil, Assistant Professor, Civil Engineering, Aligarh Muslim University	Integrated Sustainable Power Generation from Short-Rotation Forestry "Enhanced Biomass" in Rural and Semi-Urban Areas of India within Clean Development Mechanism (CO <sub>2</sub> mitigation)	DST	1.63 Cr
01/04/2013	ASET,AUH	Dr A K Raghav (Co PI) AUG,Dr. Nadeem Khalil, Assistant Professor, Civil Engineering, Aligarh Muslim University	Integrated Sustainable Power Generation from Short-Rotation Forestry "Enhanced Biomass" in Rural and Semi-Urban Areas of India within Clean Development Mechanism (CO <sub>2</sub> mitigation)	DST	4.2 Cr
2014	ASAS, AUH	Dr. Arun Kumar- PI	Metal and Metal Chalcogenides Nanoparticles: Applications in Catalysis and Sensing	SERB-DST	Awarded, Sanction Awaited

## International Visit by AUH Faculty

<p><b>Dr. Ranjeet K Brajpuriya</b> ICMSET -2013, London, UK Sponsored by DST, India 16 Nov 2013 to 17 Nov 2013</p>	<p><b>Dr. Ranjeet K Brajpuriya</b> IWATCMP, NTU, Singapore Sponsored by NTU, Singapore and ICTP, Italy 08 Feb 2013 to 20 Feb 2013</p>
<p><b>Dr. Ranjeet K Brajpuriya</b> IWASR:XST, Trieste, Italy Sponsored by ICTP, Italy 22 April 2013 to 26 April 2013</p>	<p><b>Dr. Ranjeet K Brajpuriya</b> ICMS-2011, Shanghai University, China Sponsored by CSIR &amp; INSA, India 09 Oct 2011 to 15 Oct 2011</p>
<p><b>Mr. Anupam Vyas</b> Nono-Analysis using finely focused ion and electron, Luxembourg Sponsored by University of Luxembourg 11 Nov 2013 to 15 Nov 2013</p>	<p><b>Mr. Mohit Rajpoot (Student, M.Sc Applied Physics)</b> DESY-Germany, Sponsored by Department of Science and Technology, June 2013</p>
<p><b>Miss. Neha Saha</b> 3<sup>rd</sup> WCSET-2014, Kathmandu, Nepal 27 Sept. 2014 to 30 Sept. 2014</p>	<p><b>Mr. R.S.Sethi</b> 3<sup>rd</sup> WCSET-2014, Kathmandu, Nepal 27 Sept. 2014 to 30 Sept. 2014</p>
<p><b>Dr Vinesh Attatappa</b> MCTS-2012, Paris Sponsored by DST, India 15 Oct 2012 to 17 Oct 2012</p>	<p><b>Mr. Vikas Nirmal Kumar</b> 3<sup>rd</sup> WCSET-2014, Kathmandu, Nepal 27 Sept. 2014 to 30 Sept. 2014</p>
<p><b>Dr Ayana Bhaduri</b> XII International Conference on Nanostructured Materials (NANO 2014), Moscow, Russia Sponsored by DST July 13-18, 2014</p>	<p><b>Mr. Anupam Vyas</b> PHYSWARE 2015 - Preparing 21st Century Physics Teachers Workshop Sponsored by ICTP, Italy 11 Nov 2013 to 15 Nov 2013</p>

## International Visit Sponsored by Amity

<p><b>Dr. Ranjeet K Brajpuriya</b> Modern Science and School Physics: Italy. 27 Apr 2011 to 03 May 2011</p>	<p><b>Dr. Ranjeet K Brajpuriya</b> AMPT -2014, Dubai 15 Nov 2014 to 20 Nov 2014</p>
<p><b>Dr. Shaili Srivastava</b> Murdoch University, Perth Australia October 27-31, 2014</p>	<p><b>Dr. Vijay Bharadwaj</b> CMCGS-2014), Singapore 3 Feb 2014 to 4 Feb 2014</p>

## Achievement

*Dr. Ranjeet K Brajpuriya Received Prestigious ENEA International Fellowship to work as a visiting Scientist on "Graphene Based Solar Cell" at ENEA: Italian National agency for new technologies, Energy and sustainable economic development, Rome 01 March 2015 to 31 Aug 2015*

## *Patents*

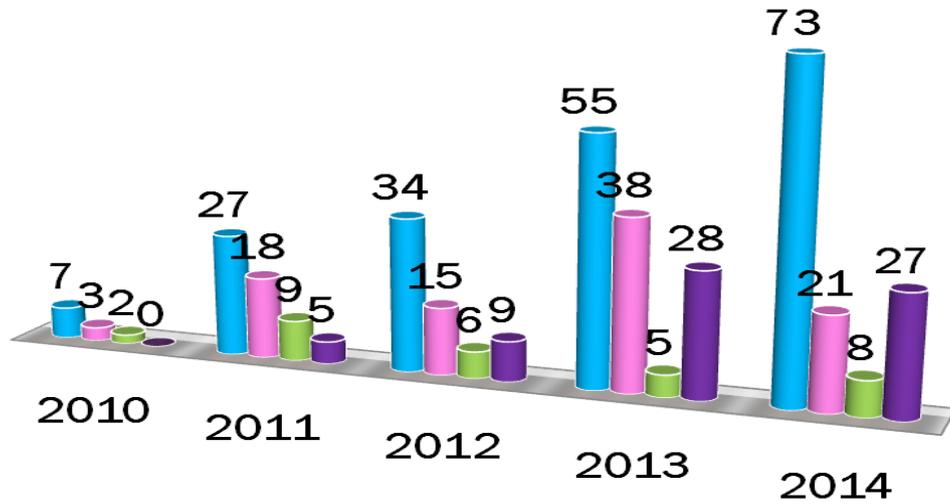
S.No.	School	Name	Title	Remarks
1	AUH	Viveak Ballyan	A PORTABLE HARVESTING TOOL FOR THORNY SPECIES	Published on 15/10/201
9	AIB	Dr. Sunil Kumar	Occupational Interest Schedule (OIS)	Accepted on 10/07/2014
1	ASET	A K Raghav Anil Chadha	Fresh concrete mix and fillability test device	Provisional patent filed on Sept 4, 2013
2	ASET	A K Raghav A N Pathak Mahendra Singh	LPG level indicator device for LPG cylinder	Provisional patent filed on Dec 10, 2013
3	ASET	A K Raghav Vivek Ballyan R K Malik	Sorting Machine For Roundish Shaped Vegetables And Fruits	Provisional patent filed on Sept 6, 2013
4	ASET	A K Raghav Subhra Das Sanjeev Sharma	Electricity From Wind Turbine System Using Solar Chimney Draft	Provisional patent filed on Sept 30, 2013
5	ASET	A K Raghav Vivek Ballyan R K Malik	Amla (Phyllanthus Emblica) Piercing Machine for Making Amla Murabba	Provisional patent filed on Sept 10, 2013
6	ASET	AK Raghav Anil Chadha	Brick Work Joint Racking Machine	Provisional patent filed on Oct 10, 2013

## *Ph.D. Scholars Enrolled at AUH*

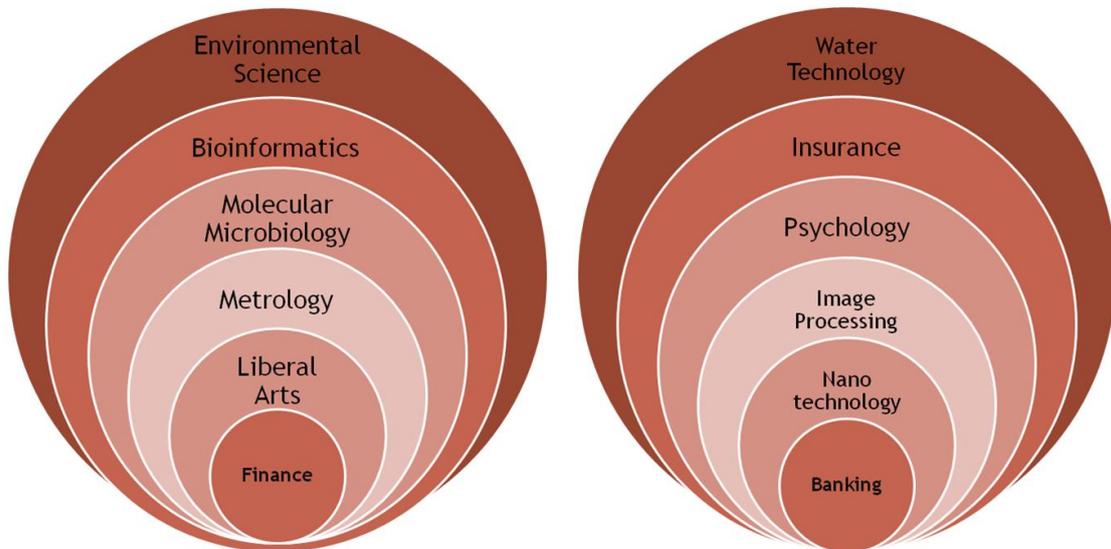
S. No.	School/Institute	No of Research Scholars Registered
1	Amity School of Applied Sciences	14
2	Amity Institute of Biotechnology	10
3	Amity School of Architecture & Planning	5
4	Amity Institute of Behavioural And Allied Science	3
5	Amity School of Communication	6
6	Amity School of Liberal Arts	1
7	Amity School of Engineering & Technology*	15
8	Amity Business School	15
	<b>Total</b>	<b>69</b>

## Amity Bioagraphy of Research (2010-2014)

Journal   conference   Book   Workshop



## Research Areas



## *Amity Research Fellowship*

### *Amity Science, Technology & Innovation Foundation (ASTIF) Fellowship*

As part of its Nation Building activities, the Amity Science, Technology & Innovation Foundation (ASTIF) awards Fellowships to brilliant young researchers and scientists. Fellowships are available in all disciplines and are not restricted in number.

#### *Eligibility for Fellowship for Ph.D*

The candidate must have first class academic record throughout upto Master's Degree from a recognized college / University. The ASTIF Fellowship will be given to only those candidates who are not getting fellowship from any other agency and those who have shown remarkable progress in research work after joining Amity's PhD Program.

## *Call for Research Proposals*

- ✚ Call for Concept Notes/Ideas in the Area of Genome Engineering Technologies and Their Applications
- ✚ DBT-MRC-DFID- Newton fund joint call for pre-proposals for Global Research Programme; addressing the health needs of women and children. (Last date for submission of proposals is 21st October, 2014)
- ✚ DBT-MRC Joint Centre Partnerships Call. (Last date for submission of proposals is September 29, 2014)
- ✚ DBT-EU INDIGO Lab Linking Programme in the area of health. (Last date for submission of proposals is September 29, 2014)
- ✚ Promoting 'Indigenous diagnostic technologies for diagnosis of TB and MDR/XDR-TB'.
- ✚ DBT-EU INNO-INDIGO Call for Proposals in the area of "Clean Water and Health". Last date for submission of proposals is October 15, 2014)

## Workshops/Seminars at AUH

S.No	Dates	Name of the Workshops/Seminars
1	30 Aug 201	National Seminar on Restructuring Higher Education
2	6 Feb2014	Workshop on Broadcast Journalism
3	04 to 10 March 2014	Workshop on Business Simulation
4	4-5 March 2014	workshop on Writing projects and wining competitions
5	13 March 2014	Research Based Lecture By Prof Peter Langer, LibiegsInstitue of catalysis , Rostock, Germany
6	3 April 2014	Research Lecture By DebasishMukhopadhyay,SINP,Calcutta
7	2 April 2014	National conference on contemporary issues in biotechnology progress and future application and panel discussion on attracting talent
8	26-30 Nov 2013	INSPIRE (Innovation in Science Pursuit for Inspired Research)
9	14 ,18 Jan 2013	INSPIRE (Innovation in Science Pursuit for Inspired Research)
10	2 April 2013	FDP with NDTV Worldwide
11	2 May 2013	FDP on Solid Works
12	21-31 May, 2013	FDP on Database Management System
13	20 Jan 2012	Workshop on Social Networking & Web 2.0
14	24 Jan 2012	A workshop on "Making mind your best"
15	31 Jan 2012	Public Seminar on "Opportunities for Advances in Health Science, at Amity University Haryana"
16	16 Feb 2012	Visit of Biotech students to "National Brain Research Center"
17	23 Feb 2012	Workshop on "Media Technology"
18	28-29 Feb	Workshop on "Bioinformatics: a computational approach towards Genomics & Proteomics"
19	12 March 2102	Inauguration "Stem Cell Centre"
20	13 march 202	Seminar on Robotics: Robotics Competition Knowledge Based Education in Engineering (RoCK-BEE )
21	24 March 2012	Conference on Youth & Positivism
22	11-12 Dec 2012	Life Science Convlave 2012
23	18 Dec 2012	Visit of IDHAO University, USA, Faculty members of the College of Architecture, University of Idha, USA visited AUH to explore possibilities of students/faculty exchange programs, twinning programms, curriculum arrangements, direct intake to masters;
24	3 March 2011	MOU has been signed between Central PolutionConrol Board (CPCB) and Amity Univeristy Haryana, Gurgaon (Manesar)
25	May 5 – 6 , 2011	International Conference on Enhancing Organizational Growth Through Innovation and Creativity - Issues, Opportunities and Challenges
26	May 10 – 11, 2011	Presented paper entitled "Application of Rs GIS techniques in ground water contamination", in an International Conference on Environmental Knowledge for Disaster Risk Management
27	May 18, 2011	Delivered a lecture on Principles & Practices of Management to the Management Trainees at Food Corporation of India (FCI), Gurgaon
28	8 – 9 Sep 2011	Two Days National Conference on Advancements in Convergence of Technologies
29	2 – 6 Nov 2011	Innovation in Science Pursuit for Inspired Research (INSPIRE) A Science Workshop for School Students
30	17.07.2010	Seminar on Career Options: Guidance by Eminent Corproate Gurus
31	22.12.2010	Seminar on Capital Markets Outlook 2011

## Few Notable Publications from AUH

Bioorganic & Medicinal Chemistry Letters xxx (2010) xxx-xxx



Contents lists available at ScienceDirect

Bioorganic & Medicinal Chemistry Letters

journal homepage: [www.elsevier.com/locate/bmcl](http://www.elsevier.com/locate/bmcl)



### Substituted imidazole derivatives as novel cardiovascular agents

Vineet Malhotra<sup>b</sup>, Seema R.Pathak<sup>a,\*</sup>, Rajendra Nath<sup>b</sup>, Devashish Mukherjee<sup>b</sup>, K Shanker<sup>c</sup>

<sup>a</sup>Applied Chemistry, ASET, Amity University, Haryana, India

<sup>b</sup>Department of Pharmacology & Therapeutics, CSJMMU, Lucknows, India

<sup>c</sup>NIC college of Engineering, Faizabad Rd, Lucknow, India

Hindawi Publishing Corporation  
Interdisciplinary Perspectives on Infectious Diseases  
Volume 2014, Article ID 541340, 7 pages  
<http://dx.doi.org/10.1155/2014/541340>



Review Article

### Multidrug Resistance: An Emerging Crisis

Jyoti Tanwar, Shrayanee Das, Zeeshan Fatima, and Saif Hameed

Amity Institute of Biotechnology, Amity University Haryana, Manesar, Gurgaon 122413, India

International Journal of Biomedical and Healthcare Science.  
Volume 3, Number 1 (2013), pp. 7-30  
© Research India Publications  
<http://www.ripublication.com>

### Diverse strategies and recent trends towards vaccine development against Visceral Leishmaniasis

Zeeshan Fatima<sup>\*#</sup>, Saif Hameed<sup>\*</sup> and SMP Khurana

Amity Institute of Biotechnology, Amity University Haryana, Gurgaon (Manesar)-122413, India.



British Microbiology Research Journal  
4(4): 369-380, 2014

SCIENCEDOMAIN international  
[www.sciencedomain.org](http://www.sciencedomain.org)



### Isolation, Identification and Optimization of Culture Conditions of *Bacillus* sp. Strain PM1 for Alkalo-thermostable Amylase Production

Kinshuk Sharma<sup>1</sup>, Sarita Bhutty<sup>1</sup>, S. M. Paul Khurana<sup>1</sup> and Urvashi Kumar Kohli<sup>1\*</sup>

<sup>1</sup>Amity Institute of Biotechnology, Amity University Haryana, Manesar, 122413, India.

## Few Notable Publications from AUH

American International Journal of  
Research in Humanities, Arts  
and Social Sciences

Available online at <http://www.iasir.net>



ISSN (Print): 2328-3734, ISSN (Online): 2328-3696, ISSN (CD-ROM): 2328-3688

AIJRHASS is a refereed, indexed, peer-reviewed, multidisciplinary and open access journal published by International Association of Scientific Innovation and Research (IASIR), USA  
(An Association Unifying the Sciences, Engineering, and Applied Research)

### Onset of Discussion and Realistic Characters in Drama

Dr Parul Yadav

Lecturer, English Literature & Communications  
Amity University Haryana (India)

Monthly Notices

of the  
ROYAL ASTRONOMICAL SOCIETY  
MNRAS 440, 3257–3261 (2014)



doi:10.1093/mnras/stu416

### High-*z* Type Ia supernova data: non-Gaussianity and direction dependence

Shashikant Gupta<sup>1\*</sup> and Meghendra Singh<sup>2</sup>

<sup>1</sup>Amity University Haryana, Gurgaon, Haryana 122413, India

<sup>2</sup>Mahamaya Tech. University, Noida, Uttar Pradesh 201309, India

Accepted 2014 February 28. Received 2014 February 15; in original form 2014 January 18

*Central Nervous System Agents in Medicinal Chemistry*, 2014, 14, 000-000

1

### Synthesis and Antihypertensive Activity of Novel Quinazolin-4(3H)-one Derivatives

Seema R. Pathak<sup>a\*</sup>, Vineet Malhotra<sup>b</sup>, Rajendra Nath<sup>b</sup> and K. Shanker<sup>c</sup>

<sup>a</sup>Chemistry Department, Amity School of Applied Sciences, Amity University Haryana, India; <sup>b</sup>Department of Pharmacology & Therapeutics, CSJMMU, Lucknow, India; <sup>c</sup>NIC College of Engineering, Faizabad Rd, Lucknow, India

*Int.J.Curr.Microbiol.App.Sci* (2014) 3(8) 528-546

*International Journal of Current Microbiology and Applied Sciences*  
ISSN: 2319-7706 Volume 3 Number 8 (2014) pp. 528-546  
<http://www.ijcmas.com>



Review Article

### Efflux pumps in drug resistance of *Mycobacterium tuberculosis*: A panoramic view

Rahul Pal, Zeeshan Fatima and Saif Hameed\*

Amity Institute of Biotechnology, Amity University Haryana, Gurgaon (Manesar)-122413, India

## Few Notable Publications from AUH



### Frontiers in Life Science

Publication details, including instructions for authors and subscription information:  
<http://www.tandfonline.com/loi/tfls20>

### Nanomaterials for biomedical applications

Sumistha Das<sup>a</sup>, Shouvik Mitra<sup>a</sup>, S. M. Paul Khurana<sup>b</sup> & Nitai Debnath<sup>b</sup>

<sup>a</sup> Biological Sciences Division, Indian Statistical Institute, 203 B. T. Road, Kolkata 700108, India

<sup>b</sup> Amity Institute of Biotechnology, Amity University Haryana, Gurgaon 122413, India  
Published online: 23 Jan 2014.



### Nutrition and Food Sciences

Manju and Paul Khurana, J Nutr Food Sci 2014, 4:4  
<http://dx.doi.org/10.4172/2155-9600.1000288>

Review Article

Open Access

### Alternative Healthy Food Crops

Manju Sharma<sup>a</sup> and Paul Khurana SM

Amity Institute of Biotechnology, Amity University, Haryana, Gurgaon, Manesar-122413, India

#### Abstract

Plants having diverse profile in terms of nutrition, availability, tolerance to harsh climatic conditions and possibility of usages as food, forage and biofuel usually referred as Alternative plants. This article will only be focused on the plants having value to reinstate themselves as alternative food crop for the burgeoning population. Indigenous communities across the globe are familiar with a large diversity of flora and fauna that provide sustenance in form of food and medicine. The 'plants for a future' website reveals a list of more than 7000 underutilized species with different values (PFAF website). Most of these plants thrive well on impoverished or marginal soils and dry weather conditions. Millets, Buckwheat, Oats, and Chenopods are coming up as imperative nutritious option. The multipurpose use of Millets, Buckwheat, Oats, Chenopods and Barley coupled with early maturity, low nutrient demand and ability to adapt well to marginal and degraded lands makes them an ideal crop for future sustainable agriculture.



### Biofertilizers & Biopesticides

Machievelli and Khurana, J Biofertil Biopestici 2013, 4:1  
<http://dx.doi.org/10.4172/2155-6202.1000e110>

Editorial

Open Access

### An Inoculating Potential of Phosphate-Solubilising Microbes as Biofertilizers

Machievelli<sup>a</sup> and SM Paul Khurana

Amity Institute of Biotechnology (AIB), Amity University Haryana (AUH), Manesar – Gurgaon, India.

#### Abstract

The microbial inoculants are playing important role in managing phosphorus as the major nutrients sustainability of agro-ecosystems. A broad canvas of biofertilizers that enhance nitrogen and specific to legumes and non legumes along with inoculants that enhance phosphorus nutrition are discussed from several perspectives. The mode of action of these microorganisms within and the transformation of nutrients is elucidated. In the Indian scenario, use of biofertilizers faces various constraints, such as longevity, etc., need to be overcome to achieve substantial fertilizer savings. One of the key issues that still remains is the method of formulation of these biofertilizers.



Contents lists available at SciVerse ScienceDirect

### Applied Surface Science

journal homepage: [www.elsevier.com/locate/apsusc](http://www.elsevier.com/locate/apsusc)



### X-ray absorption spectroscopy and photoluminescence study of rare earth ions doped strontium sulphide phosphors

Ankush Vij<sup>a,b,\*</sup>, Sanjeev Gautam<sup>a</sup>, Vinay Kumar<sup>c</sup>, R. Brajpuria<sup>d</sup>, Ravi Kumar<sup>b</sup>, Nafa Singh<sup>e</sup>, Keun Hwa Chae<sup>a,\*</sup>

<sup>a</sup> Advanced Analysts Centre, Korea Institute of Science and Technology, Seoul 136791, Republic of Korea

<sup>b</sup> Centre for Material Science and Engineering, National Institute of Science and Technology, Hamirpur 177005, India

<sup>c</sup> School of Physics, Shri Mata Vaishno Devi University, Katra 182320, India

<sup>d</sup> Amity School of Engineering and Technology, Amity University Haryana, Gurgaon 122413, India

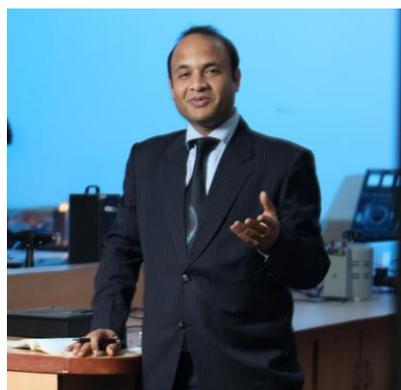
<sup>e</sup> Department of Physics, Kurukshetra University Kurukshetra, Kurukshetra 136119, India

## *Members of Directorate of Research and Publication, AUH*



*Dr. Seema Pathak, Associate Professor & Head  
Department Of Chemistry*

Dr. Pathak is coordinator DRP, AUH. She did her postgraduation in Chemistry from Lucknow University, and was awarded First Rank. She completed her Ph.D. in Organic chemistry from the Chemistry Department, Lucknow University, in 1999, under the supervision of Prof. V.K.Pandey. Her thesis was on Synthesis of Novel Hypoglycemic compounds. She was awarded with senior research fellowship, CSIR in year 1999 and worked from 1999 to 2002 in King George Medical College on Topic Synthesis of novel alpha adrenoceptors as novel cardiovascular agents. She also worked as Research Associate (CSIR) in Central Drug Research Institute for three years (since Dec 2002 to April 2005) and handled research projects on Novel Thiazolodinediones derivatives for potential hypoglycemic activity. She has more than 20 publications to her credit. She is also member of many scientific societies. Topics of her research interests are mainly synthesis of novel medicinal compounds.



*Dr. Ranjeet K Brajpuriya, Assistant Professor,  
Physics & Nanotechnology*

Dr. Brajpuriya has more than 10 years of teaching and research experience including post doctoral research work in Italy, Germany and India. Dr. Brajpuriya did his post-graduation from Devi Ahilya University, Indore. He did his doctoral work on a CSIR fellowship at UGC-DAE Consortium for Scientific Research, Indore and was awarded the Ph.D (Science) degree of Devi Ahilya University. He was a visiting Scientist from Sept 2009 to June 2010 at Synchrotron Elettra, Trieste, Italy. He has been awarded with numerous national and international fellowships. He is the member of many scientific and educational societies and referee for some of the reputed International Journals. He has published more than 50 research papers in International/National reputed journals. He has attended numerous national/international conferences in various capacities. Dr. Brajpuriya research interest includes Nanotechnology and Material Science. Presently three students are working under his supervision for their doctorate degree.



***Dr. Saif Hameed, Assistant Professor, Biotechnology***

Dr. Saif Hameed is an active member of Directorate of Research & Publications (DRP) and University Science Instrumentation Center (USIC) committee at AUH. Dr. Hameed did his Bachelors from University of Delhi and Masters from Jamia Hamdard with distinction in 2003 and 2005 respectively. He did his doctoral studies in Life Sciences from Jawaharlal Nehru University in 2010 where he also received CSIR Research Associateship for the one year postdoctoral work. He also worked as Visiting Scholar in Institut für Mikrobiologie, Heinrich-Heine-Universität, Düsseldorf, Germany in 2008. Dr. Hameed has received Young Scientist award under Fast Track Scheme from Science and Engineering Research Board, Department of Science and Technology, New Delhi in the year 2012. He is member of International Society of Infectious Diseases (ISID) and member of editorial board and reviewer panel of E3 Journal of Biotechnology and Pharmaceutical Research (EJBPR) and International Journal of Scientific and Research Publication (IJSRP) respectively. Dr. Hameed is actively engaged in research in the field of infectious diseases related to multidrug resistance (MDR) in pathogenic fungi. He has 18 peer-reviewed papers to his credit in both international and national journals of repute, participated in various conferences. He has successfully convened one national conference as Organizing Secretary in 2014. He is currently supervising 4 Ph.D. students and guided 3 UG & PG level students for their research projects. He has bagged regular project for funding from Board of Research in Nuclear Sciences (BRNS), Mumbai.



***Dr, Shaili Srivastava, Assistant Professor, Environmental Sciences***

Dr Shaili has done M.Sc in Environmental Sciences and Ph.D in Environmental Microbiology. She has done Minor in Microbiology and research specialization in Environmental Microbiology and Biotechnology (Ph.D.). She had qualified UGC-NET, ICAR-NET and GATE in 2003. Shaili had published sixteen research papers in reputed refereed international Journal and one in National journal. She had also published one book and three chapters in Text book. She had completed two self projects sponsored from CSIR and UGC and had experience of seven years of post-doctorate and 3.5 years as teaching experience (2 years after Ph.D. and 1.5 years before Ph.D.). Currently Shaili is running DST Fastrack start-up project in Amity University Gurgaon and she had Google scholar profile of h index-8 and total citations are 351.



***Dr. Zeeshan Fatima, Assistant Professor, Biotechnology***

Dr. Zeeshan Fatima is also an active member of DRP and University Science Instrumentation Center (USIC) committee at AUH. Dr. Fatima did her Bachelors and Masters from Banaras Hindu University in 2000 and 2002 respectively. She earned her doctoral degree in Biochemistry from Aligarh Muslim University in 2008. She has held research positions under nationally and internationally funded research projects which also include her postdoctoral work from University of Cincinnati, Ohio, USA in 2010. Dr. Fatima has received two Young Scientist awards under Fast Track and Women Scientist Schemes respectively from Science and Engineering Research Board, Department of Science and Technology, New Delhi in the year 2012. Recently she has bagged regular project funding from Board of Research in Nuclear Sciences (BRNS), Mumbai. She is actively engaged in research in the field of infectious diseases and particularly on *Mycobacterium tuberculosis*. She has 17 peer-reviewed papers to her credit in international and national journals of repute, participated in number of conferences. She has successfully convened one national conference as Organizing Secretary in 2014. She is currently supervising 4 Ph.D. students and guided 10 UG & PG level students for their research projects.



***Dr. Vinesh Attatappa, Assistant Professor, Physics***

Dr Vinesh Attatappa is an Assistant Professor of Physics working at Amity University Gurgaon. He did his doctoral degree from Mohanlal Shukhadia University, Udaipur. He has more than 25 peer-reviewed papers to his credit in both international and national journals of repute, participated in various conferences. His research area is Spintronics.

### **Correspondence**

The contribution of the articles, scientific ideas, innovative concepts, events, & its applications can be communicated to the DRP team.

***Dr. Seema R. Pathak,***

Coordinator, Directorate of Research & Publication

Amity University Haryana, Gurgaon (Manesar) –122413

srpathak@ggn.amity.edu