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**ACHARYA NARENDRA DEV COLLEGE**  
*beyond the classroom.....*

**ANNUAL REPORT 2009-2010**

**Savithri Singh**  
**Principal, Acharya Narendra Dev College**

We at Acharya Narendra Dev College envisage to be recognized as a centre of learning where the essence of teaching includes not only academic excellence but also all round development of students. Existence of a collective erudite atmosphere in the college is seen to promote higher standards wherein innovative teaching methods become harbingers of quality education.

A learned faculty with a high degree of motivation and dedication ensures that teaching-learning does not confine itself to imbibing bookish knowledge but also application based activities. The faculty with its strong inclination to research also ensures that students are exposed to areas of cutting-edge research while being made to understand the relevance of class-room teaching. The students therefore feel motivated to excel in all fields of life, while developing an attitude of team-spirit and a well rounded scientific temper.

Academic year 2009-2010 has been the time to consolidate for the future and prepare for a better tomorrow wherein the college has taken many strides to build, create and provide better facilities for a secured future. To include a few instances, the emphasis this year has been on development of portable classrooms and teaching laboratories, enhancing the capacity of library, upgrading the existing facilities, empowering the teachers for e-content development, consolidation of efforts to shift to FOSS etc.

In true quintessential spirit, teaching in the college has progressed beyond the classroom and into the realm of development of high quality didactic skills by moving to the next level of academics including hands-on workshops, e-learning content development, participation in issues of international significance,

It is the College's unstinted conviction that the hard work put in during the academic year would herald a better tomorrow and various concerted efforts made in this regard are enumerated in the pages to come.

**National Symposium on Chemistry in Biology: The Future in Life Sciences**

Interdisciplinary science is making solid strides and its potential for application is being realized increasingly. As a reflection of efforts currently being pursued worldwide, Acharya Narendra Dev College organized a 2 - day National Symposium on Chemistry in Biology: The Future in Life Sciences at the India International Centre, New Delhi from

12-13 February 2010. The endeavour was suitably supported by premier Government of India funding agencies including the Department of Biotechnology (DBT), Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC) and Indian Council of Medical Research (ICMR). Hon'ble Vice Chancellor of University of Delhi, Professor Deepak Pental set the ball rolling by welcoming the participants and introducing them to the wonderful world of cross-disciplinary science and the immense potential this field offered in terms of real life applications.

The Symposium provided an able platform for the faculty and college students to interact with eminent scientists and unravel the many intrigues of chemistry-biology interface. It generated tremendous interest amongst the students as they were able to understand and correlate the relevance of their classroom study in the context of real life issues. The interdisciplinary nature of the symposium provided the perfect setting for a free and fair exchange of ideas and knowledge. Synergistic discussions on pertinent issues of national and international significance coupled with an in-depth treatment of thematic areas provided an academically enriching experience for the participants. Topics including structural biology-drug discovery, nano-devices - nano-medicine, and green chemistry-clean technology

Special Invited talks by Professor B. Jayaram (IIT Delhi), Dr. Amit Sharma (ICGEB), Dr. Amulya Panda (NII), Dr. K. C. Gupta (IITR, Lucknow), Professor Hans-Uwe Dahms (South Korea), Dr. Rita Kumar and Dr. V. C. Kalia (both IGIB) and Professor R.K. Saxena ( University of Delhi, South Campus) were inspirational and led to very good interactive question and answer sessions.

There was also a Panel Discussion on 'Teaching of Science' – Dr Vasudha Kamat (NCERT) and Dr. R Sreedher (CEMCA) emphasized the importance of integration of ICT tools in education. The other panelists Professor Amitabha Mukherjee, Professor K. Muralidhar and Dr. Savithri Singh discussed various aspects of classroom teaching of Science in the University and schools.

The symposium was unique in that there were two sessions exclusively for student presentations – both oral and poster presentations. These sessions provided space to students for good interactions with eminent scientists. The best oral and two best poster presentations were given 'Young Chemical Biologist' awards. The symposium had over 158 participants including 70 students. Initiative such as this is sure to provide a significant boost to creating interest amongst students to choose science as a viable career option and also open-up vistas for them to work with scientists in national laboratories.

## **INFRASTRUCTURE**

The college true to its belief in the byline – Beyond the Classroom has procured state-of-the-art research equipments including a lyophilizer, Gel Documentation system, phase contrast microscope, refrigerated incubator shaker and gradient PCR. These equipments besides serving the cause of research by the faculty are also used to provide hands-on training to the students who therefore get an opportunity to correlate some of the things

taught in the books. Operating these instruments they embark on a steep learning curve as they get to appreciate finer points of research.

The college believes in consolidating for tomorrow and in pursuance of this conviction had asked for enhanced space requirement from authorities that be, to the tune of twelve port-a-cabins and out of which only six were sanctioned. The port-a-cabins numbering four are already functioning as classrooms whereas remaining two are in advanced stages of commission as laboratories for students of Life Sciences and Physical Sciences. Construction of Life Science and Physical Science laboratories is being coordinated by Departments of Botany and Physics respectively.

In order to satisfy the ever increasing power requirement due to the teaching laboratories and expanding infrastructure, the college has taken the initiative to boost the electrical load from a mere 58 KVA to a whopping 200 KVA making it future-ready. A new block to house the electric sub-station exclusively for the college coupled with a new H. T. Transformer has already been constructed.

Two laboratories of Department of Chemistry were comprehensively refurbished last summer – this was urgent since the drainage system in the laboratories were in a dangerous state. One laboratory each of Department of Botany, Zoology and Electronics have been renovated from scratch for proper installation of high-end instruments and creating more space for an increased intake of students. Department of Zoology has been provided a new staffroom and the same for Department of Computer Science is in the works.

Learning from the canteen developed at the South Campus, we also, in association with the National Mission for Bamboo Applications, have created a new canteen block - the three canteen structures house the kitchen, the student hall and a faculty room. In keeping with the eco-friendly structure we are in the process of procuring Bamboo furniture for the Staff block.

Saddled with an augmented student intake the college has constructed a new dedicated toilet block besides boosting the capacity of two existing ones. The college has also begun work to relocate its entrance so as to make access to the upcoming Metro station easier. We want to strongly encourage everybody in the college to use this eco-friendly mode of travel.

Constructions of new reinforced staircases, storing areas and wall cupboards are some of the other space creation initiatives that the college has undertaken during the year.

### **Special grants / Assistance received**

#### **Grants released by the Directorate of Higher Education to PWD for Infrastructural works in the college (01.03.2009 onwards)**

<b>S. No.</b>	<b>Nature of work (Date of sanction)</b>	<b>Amount Sanctioned (Rs.)</b>
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1.	Topographical survey of Land with survey station (03.03.2009)	3,33,500/-
2.	Providing and fixing of sub-station with HT system (03.03.2009)	48,23,196
3.	6 Temporary Portable class rooms including Electrical Works. (04.05.2009)	41,70,780
4.	Providing working Platform & Shelves in Laboratories (04.05.2009)	57,69,311
5.	Chemistry Laboratory and Computer Lab work (14.07.2009).	23,11,130
6.	Construction of additional floor for Library in M. P. Hall. (14.07.2009)	21,83,960
7.	White washing and painting etc. (14.07.2009)	9,69,500
8.	Minor Repair Works (29.09.2009)	8,90,500

**Non-recurring Grants received from Directorate of Higher Education (01.03.2009 onwards)**

S. No.	Date of sanction	Amount Sanctioned (Rs.)
1.	17.03.2009	50,000
2.	24.03.2009	80,20,000
3.	15.10.2009	44,00,000

## **ACHIEVEMENTS AND SCHOLARSHIPS**

### **Scholarships and Fellowships**

The meritorious nature of students in the college is reflected by the number of scholarships / fellowships that they receive both from within the college as well as from outside agencies.

**List of students who have got scholarships from outside the college:**

S. No.	Name	Course	Scholarship and agency	Amount (Rs.)
1.	Ms. Swati Tyagi	B.Sc. (H) Biomedical Science Part III	Meritorious Scholarship Govt. of NCT of Delhi	5000/-
2.	Mr. G. Abhishek Kumar	B.Sc. (H) Computer Science Part III	National Talent Search Scheme-NCERT	6000/- (July 2008 to June 2009)
3.	Ms. Shabana	B.Com. (H) Part I	Post Matric Scholarship to	4850/-

			Minority students Govt. of NCT of Delhi	(2008-09)
4.	Ms. Poonam Shandhu	B.Sc. (H) Physics III	Post Matric Scholarship to Minority students Govt. of NCT of Delhi	4850/- (2008-09)
5.	Ms. Farzana Parveen	B.Sc.(H) Botany II	Post Matric Scholarship to Minority students Govt. of NCT of Delhi	4850/- (2008-09)
6.	Mr. Prince	B.Sc.(H) Electronics Part III	Post Matric Scholarship to SC/ST/OBC students Govt. of NCT of Delhi	4200/- (2008-09)
7.	Mr. Pradeep	B.Sc.(H) Computer Science Part II	Post Matric Scholarship to SC/ST/OBC students Govt. of NCT of Delhi	4200/- (2008-09)
8.	Ms. Sangeeta	B.Sc. Programme in Life Sciences Part II	Post Matric Scholarship to SC/ST/OBC students Govt. of NCT of Delhi	4200/- (2008-09)
9.	Mr. Vibhav Batra	B.Com (H) Part III	Postal Directorate Staff Welfare Fund Department of Posts Ministry of Communications & IT	1440/- (120/- p.m. For 12 months)
10.	Mr. Deepak Gangwar	B.Sc. (H) Mathematics Part I	Subodh Chander Amiya Banerjee Book Grant	600/- p.a. (2009-10)
11.	Mr. Jeeva Susan Abraham	B.Sc. (H) Zoology Part III	Science Meritorious Award, University of Delhi.	800/- (2008-09)
12.	Mr. Payal Das	B.Sc. (H) Zoology Part III	- do -	800/- (2008-09)
13.	Mr. Manoj Thakur	B.Sc. (H) Botany Part III	- do -	800/- (2008-09)
14.	Ms. Jyoti Mittal	B.Sc. (H) Botany Part III	- do -	800/- (2008-09)
15.	Mr. Kamal Jha	B.Sc. (H) Botany Part III	- do -	800/- (2008-09)

**List of students who have got scholarships from the college:**

***D. C. Arora Scholarship***

a) Meritorious Category

S. No.	Name	Course
1.	Neeraj Kumar Singh	B. Sc. (Prog) Life Sciences - III
2.	Vijay Gupta	B. Sc. (H) Chemistry - II

b) Disadvantaged Category

S. No.	Name	Course
1.	Vipendra Kumar	B. Sc. (Prog) Life Sciences - I
2.	Rajiv Mahato	B. Com. (H) - I

***Teena Gupta Memorial Scholarship***

S. No.	Name	Course
1.	Ms. Rama Nayal	B. Sc. (H) Electronics – III
2.	Mr. Nitin Bhatia	B. Sc. (H) Electronics – II
3.	Mr. Nitish Kr. Mallick	B. Sc. (H) Electronics – I
4.	Mr. Gagan Gupta	B. Sc. (Prog.) Applied Physical Science – I
5.	Mr. Chandan Kumar	B. Sc. (Prog.) Applied Physical Science – I
6.	Mr. Sujit Kumar	B. Sc. (Prog.) Applied Physical Science – I

Ms. Rama Nayal is also the recipient of Udayan Shalini Fellowship over and above the Teena Gupta Memorial scholarship

Mr. Deepak Gangwar is the recipient of Subodh Chandra Amya Banerjee award by the University of Delhi.

In the Subject Aptitude Test (SAT) amongst first year students of various streams of study in college Mr. Himanshu Bhatt of B.Sc. Biomedical Science – I year, was awarded a cash prize of Rs 1000/- for his performance.

Besides the above, under the pioneering “earn-while-you-learn” programme, six students coming from a disadvantaged background have been given an opportunity to fund their education.

***Students' Achievements***

The pioneering concept of ‘beyond the classroom’ adopted by the college last year has already started showing results wherein students of the college have been successful in breaking the shackles of classroom teaching and excelling themselves in various fields. A case in point is of Ms. Ruchika Pokhriyal B.Sc. (H) Biomedical Science Part – II who won the Prithvi Ratna Prize in the all India level essay competition organized by MoEF /

WWF-India in the 19-21 years age group, English category. She was one of four students selected (notably all girls!!) from all over the country to attend the United Nations Framework Convention for Climate Change at Copenhagen, Denmark from 7 – 18 December 2009 as part of the official youth delegation.

With faculty doing research, can students be far behind? Ms. Lipsa from B.Sc. (H) Biomedical Sciences Part-II, was selected for the ‘Young Scientist’ by the Department of Environment, Government of NCT of Delhi – the only winner from the University of Delhi. She has been sanctioned a grant of Rs. 3,00,000/- to carry out research in the project titled “To investigate the therapeutic potential of an anti-hTR oligonucleotide”.

Ms. Lipsa and Ms. Neharika Jain B.Sc. (H) Biomedical Science Part-I received fellowship of Rs. 10, 000 for two months summer training from the Indian Academy of Sciences, Bangalore.

Mr. Nazim Ali and Mr. Rohit Gambhir of B.Sc. (H) Electronics Part-III presented their paper titled “Development of a PC based Optical Power Meter” in Icon TOP 2009 – the First International Conference on Trends in Optics & Photonics organised by the Department of Applied Optics & Photonics, University of Calcutta during 1 – 4 March 2009.

Ms. Rama Nayal of B.Sc. (H) Electronics Part-III is a co-author of paper titled “Optical Pedagogy for Fringe Measurement and Analysis using LabVIEW” that was selected amongst the top 20 papers in a National Level Technical Paper Contest, VI MANTRA 2009, organized by National Instruments, Texas.

Mr. Avdesh Kumar and Mr. Zameer Khan both of B.Sc. (H) Electronics Part-I presented a paper titled “Innovations in teaching physics of sound” at the 6<sup>th</sup> International Conference on Hands-on Science (HSCI 2009), titled ‘Science for All: Quest for Excellence’ from 27 – 31 October 2009 at the Science City, Ahmedabad.

In the National Symposium, “Chemistry in Biology: The Future of Life Sciences”, held during 12 - 13 February 2010 at India Habitat Centre, New Delhi students from the college participated actively as co-authors adhering to the belief that there is more to studies beyond the classroom and names of the student participants are as hereunder

<b>S. No.</b>	<b>Name</b>	<b>Course</b>	<b>Presentation type</b>
1.	Ms. Priya Barua	B. Sc. (H) Chemistry	Oral
2.	Ms. Sakshi Gera	B. Sc. Biomedical Science	Poster
3.	Ms. Shuchi Garg	B. Sc. (H) Zoology	Poster
4.	Ms. Payal Das	B. Sc. (H) Zoology	Poster
5.	Ms. Purnima Wadhwan	B. Sc. (H) Electronics	Poster
6.	Ms. Preeti Jha	B. Sc. (H) Chemistry	Poster
7.	Ms. Swati Jha	B. Sc. (H) Chemistry	Poster
8.	Mr. Nitin Kumar	B. Sc. (H) Zoology	Poster
9.	Mr. Abhay Pratap Singh	B. Sc. (H) Zoology	Poster



10.	Mr. Bharat Bhatt	B. Sc. Biomedical Science	Poster
11.	Ms. Preeti Yadav	B. Sc. Biomedical Science	Poster
12.	Ms. Kartika Vasishtha	B. Sc. Biomedical Science	Poster
13.	Ms. Kirti Gupta	B. Sc. Biomedical Science	Poster
14.	Ms. Ruchika Pokhriyal	B. Sc. Biomedical Science	Poster

## **ACHIEVEMENTS OF FACULTY**

This year marked a watershed moment for recognition of faculty members of the college for having rendered yeoman service to the society. No less than three faculty members, Dr. Sarita Kumar, and Dr. Seema Makhija from Department of Zoology and Dr. M. S. Rajeshwari from Department of Botany brought pride to college. They were felicitated by University of Delhi as 'Distinguished Teacher' on Teacher's Day by Honorable ex-President Professor A. P. J. Abdul Kalam. The event attracted extensive press coverage and was the talk of the town, helped develop a sense of pride amongst students and colleagues of the college.

Dr. Savithri Singh, Principal of the college while striving to build an institution par excellence continues to contribute substantially in her role as an educationalist and a FOSS and OER evangelist. As the Vice-Chair and elected member of the International WikiEducator Community Council, she is instrumental in using the wiki platform to propagate Open Educational Resources (OERs). To this end she organized a number of workshops on OERs and Wikieducator throughout the year (Workshop on Open Educational Resources (OER): 13 - 17 April 2009 at South Campus, Easy Now Workshop for Teachers: 25 - 29 April 2009, WikiEducator for Students: 12 - 16 May 2009, workshop on WikiEducator at the NCERT, New Delhi: 27 - 29 July 2009). Her efforts in this pursuit took her to Dhaka, Bangladesh where she conducted an International Workshop on 'Creating local content using WikiEducator and EasyNow' from 12 - 15 December 2009.

Quality is a major issue whenever content is created for mass dissemination; this is true also of e-content. Commonwealth Educational Media Centre for Asia of the Commonwealth of Learning set up a Core team consisting of experts from India and Malaysia for developing quality parameters for multimedia. The first formal version of the document titled 'Quality Assurance in Multimedia Learning Materials' was presented at the meeting of the Core Group on Quality Assurance of Multimedia Learning Materials (QAMLM) (2 - 3 April 2009, India International Center, New Delhi). Dr. Singh also attended the International Base Camp on Quality Assurance of Multimedia Learning Materials (QAMLM) organized by CEMCA in association with the Madurai Kamraj University during 1 - 4 February 2010 at Madurai. At this base camp feedback was received from several users on the framework developed.

Dr. Savithri Singh also believes that teachers in the Universities and colleges who teach in a face-to-face mode can contribute in a major way to e-content development. The only lacuna that prevents this from happening is the lack of familiarity to web tools to enable adapting content to e-mode. Dr. Singh is promoting use of the Wikieducator platform on the one hand for e-content upload, while on the other she is interested in promoting

EasyNow as a set of tools that enable easy modifications of static textual content into audio, video, enriched videos, presentation-streaming with voice-over and other modes suitable for the net. Her efforts in this direction resulted in organization of EasyNow Base Camp for the development of E-courseware for undergraduate courses of the University of Delhi by the teachers from various colleges of the University from 12 September to 9 October 2009. She was also invited to speak at the workshop on 'Quality Assurance through Blended Learning' organized by Maitreyi College, University of Delhi (20 January 2010) where she spoke on both 'Quality Assurance' as well as on 'Wikieducator'. At the Education Fair – Tech@EDU organized by Electronics for You at Pragati Maidan, New Delhi (13 June 2009) she spoke on 'Wikieducator for access to education'.

Dr. Savithri Singh continues her contribution to school education by working with NCERT through various forums – she was invited by the Department of Education in Science and Mathematics of the NCERT, New Delhi for the programme entitled "Development of Exemplary Problems in Biology for Class XII" (21 – 24 February 2009). She has also edited the reviewed materials of biology textbooks for class XI and XII on invitation by Regional Institute of Education of the NCERT, Bhubaneswar, Orissa. As member of the focus group 'Teaching of Science' that developed the Science Curriculum for the National Curriculum Framework she is often invited to address school teachers – she was invited to the Orientation Programme for the Southern Zone. The programme was organized by the Curriculum Group of NCERT (29 – 31 December 2009).

Dr. Savithri Singh takes keen interest in recent trends and policy formulation in the area of higher education. She participated in the conferences on Higher education – Edvantage (8 July 2009; Hotel Hyatt Regency, New Delhi) and another organized by the Economic Times (11 August 2009; Hotel Le Meridian, New Delhi). Dr. Singh has been recognized for her competence in the field of educational administration. This can be seen by her being member of various Committees of the University of Delhi viz., Standing Committee to scrutinize the proposals for assigning new courses to the colleges for the academic year 2009-10, Business Advisory Committee of the Academic Council, Advisory Committee of the Department of Hindi Medium Implementation, Advisory Committee for Admission to lay down Admission Procedure for academic session 2009-10 and Science Courses Admission Committee. She also is Member of the Governing Body of Government Science College, Raipur, Chhattisgarh as also member of the Departmental Advisory Board of the Department of Teacher Education, NCERT, New Delhi. She was invited to judge a school science competition titled 'Innovative Science Exhibition 09-10' at Rourkela, Orissa (14 – 15 January 2010).

Dr. Ram Kumar, Department of Zoology was an Invited Professor at Université de Lille 1, Sciences et Technologies, CNRS - UMR 8187, France during the period May - July 2009 and as a Visiting Scientist, in National Taiwan Ocean University for Promotion of Marine Ecology Research, at the Institute of Marine Biology, NTOU, Taiwan, ROC during October - November, 2009.

Dr. Arijit Chowdhuri, Department of Physics was a Visiting Fellow at the Department of Electronics Materials Engineering, Research School of Physics and Engineering, The Australian National University, Canberra, ACT 0200, Australia for six months starting June 2009.

Dr. Sarita Kumar was appointed honorable member of editorial board of an international journal – the Journal of Applied and Natural Science. Dr. Arijit Chowdhuri continues to be editorial advisory board member of the international journal – Sensors and Transducers. Dr. Amit Garg and Ms. Reena Sharma were appointed reviewers for the journal ‘Computer Application in Engineering Education’ published by John Wiley and Sons.

Dr. Anju Agarwal became member of two international societies of IEEE, namely Professional Organization and Communication Society besides being a member of Society of Microelectronics. Dr. Amit Garg continues to be a member of Optical Society of India, while Dr. Arijit Chowdhuri became a member of IEEE, USA.

Dr. Anju Agrawal supervised a Ph. D. thesis titled “Analytical Modeling and Simulation of AlGaIn/GaN Modulation Doped Field Effect Transistor” as a co-guide.

Dr. Ram Kumar delivered three invited talks besides chairing a session in an international conference, while Dr. Arijit Chowdhuri delivered two invited talks and details of the same are incorporated in the Annexure to this report.

## **WORKSHOPS**

### **FOSS & Linux Workshops 2009-10**

As part of its larger commitment the college extended the ambit of FOSS and Linux this year also and one of the notable achievements has been the formation of an active FOSS CLUB for conducting FOSS and Linux seminars. FOSSTIVAL'10, a two-day workshop held during 8 - 9 January 2010, was one such effort towards popularization and enhancing dissemination of the concept of ‘open source’. Eminent speakers including Mr. Satyaakam Goswami, Mr. Mohit Singh and Mr. Narendra Sisodiya helped conduct the workshop with interactive sessions on FOSS. Mr. Goswami with his immense experience enlightened the students about the prevalence of FOSS in the industry and career opportunities available therein. He also explained the concept of computer clustering, besides guiding participants with hands-on session on kernel and its security implications. He was impressed with the ‘Cluster Project’ that students of the college carried wherein they used old discarded computers to create a functional cluster. Mr. Singh stressed on the upcoming area of socket programming and demonstrated live applications related to TCP/IP, UDP in addition to real-time socket programming using system calls. Taking FOSS up another notch Mr. Sisodiya explained in detail the intricacies of JQuery. The participants enjoyed the workshop and were wiser having grasped concepts of the very latest technological developments in the world.

### **Continuing the 'Wikieducator' initiative saga**

The college reiterated its commitment to creation and free dissemination of Open Educational Resources (OERs) which is educational content created on the web by eminent educationists sans any commercial angle. Being available for free under open licence (Creative Commons), it is one of the causes that Dr. Savithri Singh, Principal firmly believes in as she espouses the twin causes of 'Free Open Source Software (FOSS)' and Open Educational Resources (OERs) through 'Wikieducator' by being elected a member and as Deputy Chair of the International Community Council of Wikieducator.

In support of the open philosophy the college organized two sets of parallel 'Learning for Content' (L4C 42 and 43) workshops from 13 – 17 April 2009 (at University of Delhi South Campus) and L4C 44 and L4C 45 from 12 – 15 May 2009 (in the college). Commonwealth of Learning (COL), Vancouver, Canada suitably funded these workshops that included wide participation from faculty, students and other educationists not only from the college but also from other academic institutions.

Taking the cause of blended learning further down to the grass-root level the college organized a workshop (L4C 46) on 'Open Educational Resources' for school teachers, of Sri Ram School, Vasant Vihar during on 16 - 18 May, 2009.

At the April 2009 workshop Dr. Savithri Singh (Principal), and Mr. Niyam Bhusan (FOSS evangelist and Graphic Designer) introduced the participants to the wonderful world of "open source" software while Mr. V. Krishnamoorthy (Consultant, CEMCA) exposed the participants to 'Easy Now' - a collection of open access or freely available software for creation of multiple media content. Mr Krishnamoorthy also guided the participants through the various steps for developing e-learning content with due publication of basic course material on the web. In-house resource persons including Dr. Sarita Kumar (Zoology), Dr. Neeti Misra (Chemistry), Dr. Arijit Chowdhuri (Physics), Mr. Subhash Kumar (Physics)) besides making presentation on 'Wikieducator' also helped the participants during the extensive laboratory sessions. The participants exhibited their keenness in developing course material 'hands-on' and were pleasantly surprised by the plethora of open source software material freely available on the web to seamless weave basic material and technology. Having overcome the technology quotient they were able to understand how to publish materials and developed e-learning modules.

### **Electrawork - 2009**

As part of the annual workshop series the Department of Electronics organized "Electrawork - 2009: A two-week hands-on workshop on Emerging trends in Electronics" in the college from 1- 2 June 2009 for the students/faculty of Physics and Electronics from the University. The workshop in collaboration with Delhi College of Engineering, National Instruments Limited and Excel Technologies included experiments in contemporary topics including Optical Fibre Communication, Embedded Systems - Robotics and Data Acquisition - Signal Processing using LabVIEW software. The

participants in the workshop got introduced to working real time on state-of-the-art projects and the positive vibes that emanated made the workshop a grand success.

### **Biology and Biotechnology of Actinomycetes**

Ring true the concept to taking studies further than just bookish knowledge a three-week workshop on “Biology and Biotechnology of Actinomycetes” was organized in the college during 8-30 June 2009. Participants in the workshop were given hands-on demonstration on diverse aspects including preparation of culture media, maintenance of strains, microscopic observation of isolates and screening thereof for traces of antibacterial activity, determination of minimum inhibitory concentration (MIC) of antibiotic compounds, spectrophotometric analysis of active extracts, isolation of plasmid and genomic DNA from isolates besides developing taxonomy of strains by constructing phylogenetic trees based on 16SrRNA gene sequences. The participants maintained extensive log-books besides storing photographic evidence. At the end of the three-week endeavour that participants had become well-versed in use of basic molecular biology techniques for Gram Positive bacteria besides gaining a scientific outlook.

### **RESEARCH PROJECTS**

The faculty strongly believes in pursuing research to keep themselves abreast of latest happenings around the world and with a strong support from the College authorities in the form of laboratories augmented with state-of-the-art equipments as also 24-hour power back- up. The state is such that there are no less than six projects currently running in the college with two more in advanced stages of sanction.

<b>S. No.</b>	<b>Name of Faculty</b>	<b>Title of the Project</b>	<b>Funding Agency</b>	<b>Rs. in Lakhs</b>
1.	Dr. Urmi Bajpai	Cloning and Expression of Mycobacterium tuberculosis genes <b>Period: 3 years w.e.f 1.5.2010</b>	Council of Scientific and Industrial Research (CSIR)	20.0
2.	Dr. Sarita Kumar (Principal Investigator)	Larvicidal Properties of Certain Botanicals against Mosquito larvae – A Alternative for Mosquito Control <b>Period: 3 years w.e.f 1.5.2009</b>	University Grants Commission (UGC)	10.96
3.	Dr. Amit Garg (Principal Investigator) Mr. Vishal Dhingra &	Investigating science Hands-on to promote innovation & research at undergraduate level	University Grants Commission (UGC)	10.54

	Dr. Savithri Singh (Co-Investigators)	<b>Period: 3 years w.e.f 1.2.2009</b>		
4.	Dr. Vandana Uberoi (Principal Investigator) Dr. Sunita Hooda & Dr. Geetu Gambhir(Co- investigators)	Fabrication of new polymer sensors for Environmental protection. <b>Period: 3 years w.e.f April 2008</b>	University Grants Commission (UGC)	7.57.
5.	Dr. Ram Kumar (Principal Investigators)	Evaluation of the potential of cyclopid as copepod as an effective Bio-control agent for the control of disease vectors. <b>Period: 3 years w.e.f 1.2.2008</b>	Indian Council of Medical Research (ICMR)	16.00
6.	Dr. Monisha Khanna (Principal Investigator)	Isolation and characterization of actinomycetes and analysis of their antibacterial potential. <b>Period: 3 years w.e.f. 14.08.2006</b>	Ministry of Environment and Forests (MOEF)	9.92

Dr. Sarita Kumar, Department of Zoology was sanctioned a UGC research project 'A Laboratory study on the 'Larvicidal Properties of Certain Botanicals against Mosquito larvae – A Alternative for Mosquito Control' as the Principal Investigator w.e.f. 01 May 2009. The project aims to explore alternate, simple and sustainable ways of mosquito control since continued usage of synthetic insecticides not only render the disease vectors immune but also inflict adverse effects on the environment. In order to investigate the potential of various phytochemicals for their application as mosquitocidal agents, three species of mosquitoes, *Anopheles stephensi*, *Aedes aegypti* and *Culex quinquefasciatus*, are being cultured under controlled conditions in a dedicated laboratory. Undergraduate students of B.Sc. (H) Zoology are also proactively involved in carrying out curriculum related projects in the laboratory thus gaining valuable hands-on experience. Ms. Radhika Warikoo, Project Associate bagged the first prize by presenting part of the project work in the National Symposium on 'Chemistry in Biology: The Future of Life Sciences', 12 - 13 February 2010, India International Centre, New Delhi.

Dr. Urmi Bajpai, Associate Professor, Department of Biomedical Sciences has been selected to be a principal investigator for a CSIR funded Open Source Drug Discovery project on "Cloning and Expression of Mycobacterium tuberculosis genes". The project with a three year duration has been sanctioned a grant of Rs. 20 Lakhs. This project envisages participation of students in the experimentation and further to interact with other scientists working on the same in a virtual mode.

Under the tutelage of the ongoing project “Investigating science Hands-on to promote innovation & research at undergraduate level” with Dr. Amit Garg as PI and Dr. Savithri Singh and Mr. Vishal Dhingra as Co-PIs, undergraduate students of different disciplines in the college are being imparted training not only to automate various experiments using computer interfaced sensors but also develop feeling of camaraderie working in groups. Students of Electronics, Physics, Life Sciences and Chemistry are being encouraged to work in these projects so as to develop skill sets in using advanced data-acquisition tools including LabVIEW and LabQuest. They are being exposed to various pedagogical practices in electronics, physics, chemistry and life sciences using different types of sensors like CO<sub>2</sub> gas sensor, conductivity probes, pH probe, current sensors, light sensors and magnetic field sensors to name a few and that have been instrumental in enhancing their procedural and conceptual understanding. Another significant development has been the use of CCD for automatic fringe measurements and analysis by the students and the same has been selected amongst the top 20 papers in VI Mantra 2009. Within a short span of one year seven publications and student participation in national and international conferences have been the major outcomes of the project.

Two new research proposals are in the final phase of approval for funding, one each from DBT and DST. Besides these two the college has also submitted proposals for setting up a 'Centre for Undergraduate research and Training' in order to promote students' experimental projects and outcome of the same is awaited.

## **COLLEGE ACTIVITIES**

### **Acharya Narendra Dev Memorial Lecture**

The college organized Acharya Narendra Dev memorial lecture on 28 October 2009 to mark the birth anniversary of Shri Acharyaji. The College had the privilege of getting the opportunity to host ex-Member of Parliament and prominent socialist leader Mr. Surendra Mohan who had been a contemporary of Acharya Narendra Dev since the days of independence struggle. Mr. Mohan's renowned oratorical skills came to the fore when he delivered the memorial lecture on the topic “Relevance of socialism today”. His lecture described the life and philosophy of Acharya Narendra Dev and espoused his contribution in shaping the spread of socialism to the grass-root levels in India. The audience could appreciate the relevance of Acharyaji's work in the current scenario in terms of work-ethics and life skills and realized how socialism could ameliorate and alleviate the sufferings caused by the existing economic downturn throughout the world. The lecture was a panorama of life and times of Acharyaji and included his contribution in various fields of literature, history, culture and philosophy.

The college held the memorial lecture for the second year running and hopes to use the occasion each year to make the students aware of and influencing their lives with values and beliefs that Acharya Narendra Devji stood for.

### **SPICMACAY - ANDC Chapter**

The ANDC chapter of SPICMACAY organized a classical music concert of Ustad Fahimuddin Dagar who is a world renowned exponent of Dhrupad. Dhrupad, a vocal genre in Hindustani classical music, is said to be its oldest and pristine form. Ustadji is one of the living legends who still practices this rare and complex form of classical music. The college was fortunate to host Ustadji's concert under the aegis of SPICMACAY on 16 September 2009. This concert was part of the ongoing *Virasat* series of SPICMACAY, which this year, has been dedicated in the memory of maestros Ali Akbar Khan, D. K. Pattammal, Gangubhai Hangal, Vishnu Prabhakar, Habib Tanvir, Palghat R. Raghu and Tyeb Mehta.

### **Annual Day**

The Annual Day of the college was held on 5 March 2009 with Professor Kiran Walia, Hon'ble Minister Health and Family welfare, Women and Child development, Languages gracing the occasion as the chief guest. The entire teaching community of University of Delhi, take a lot of pride in the fact that a lady who started her career from the humble beginnings of a college could rise to such a position of eminence. She is the apt role model that faculty and students alike look up to. In her address she shared her experiences as an educationist, a social learner and as an able government executive. Known for her honesty, hard work and a proactive approach she exhorted the youth of today to be responsible and take up cudgels on their own, for bringing about social change and not wait for the sluggish government bureaucracy to act out their responsibilities. Many a student felt inspired as she distributed prizes to the meritorious students of the college. Guest of honor Professor Nayanjot Lahiri an acclaimed historian of international fame and Dean of Colleges, University of Delhi while echoing similar sentiments as Professor Walia also delivered an inspiring talk. While addressing the students she mainly stressed on many instances in the rich cultural heritage of India where women have time and again exhibited leadership skills beyond the expected to become harbingers of change in society. Her talk greatly motivated the girl students to complete their education against all odds and become support for their families. Professor Matadin, Chairman of the Governing Body delivered the presidential address and congratulated the principal, faculty and non-teaching staff of the college for running the college as an efficient and result oriented outfit bringing in laurels time and again.

Dr. Savithri Singh, presented achievements of the college in front of the august gathering as she read out the Annual report which not only included laurels won by the college over the past year but also areas where there was a scope of improvement. She also insisted everyone in the college to be a team player and strive for success in all spheres.

### **ACCENTURE - The Annual Cultural Festival**

Accenture, organized every year is a much looked forward to event in the college and it is sheer coincidence that it also happens to be the college's cultural and literary extravaganza. The event encompasses two days of unadulterated fun and joy for the students who not only run and manage the show but also get the opportunity to show-case their skills. Organizing an event of this mega proportions not only promotes the spirit of



healthy competition amongst students but also inculcates soul of self-belief besides imparting a useful dose of self-confidence, basically some of the skills that prove handy to them later on in life.

This year Accenture' 09 was held on 22-23 December and during these two days the college wore a festive look with the spirit of youth flowing everywhere and following everyone. With more than abundant sponsorships flowing in from corporates like Vodafone, Punjab National Bank and State bank of Hyderabad and co-sponsors including Avon cosmetics, IILM and ICFAI the festival was a well organized one. Mr. B.P Singh, chairperson, of the governing body inaugurated the festival that was followed by a brief cultural show by college students which had just the right blend of dance, drama and band performance. Over the two days the students participated in debates, quizzes, rangoli design and dance competitions. Hilarious recital of poetry by Dr. Kumar Vishwas, had everyone in splits and made everyone realize that laughter is the best medicine. The festival culminated with the JAM session where the students got a chance to let their hair down and dance away their blues where they received an able support from emcee Amna Mirza and her troupe who entertained with an interesting mix of contemporary, rock, techno, latest chartbusters and of course the ever so popular remixes.

### **Alumni Affairs**

The alumni affairs committee in keeping with the yearly schedule organized the alumni meet cum get-together on 7 February 2010. It was a very well attended event, growing in size and participation with each passing year. The primary objective of the alumni meet was to deliberate on two key areas that act as pillars of a dynamic and evolving college and which can be strengthened by the direct and active involvement of its alumni. The areas of importance were enhanced student - faculty interaction and evolving strategies to strengthen the outreach activities of the college. The meet involved bringing together of many people associated with college at one place, and provide opportunities to renew and make new contacts.

The wonderful occasion was utilized by the current students to meet and share the experiences with alumni. During inauguration, Principal Dr. Savithri Singh after extending a warm welcome to the alumni, dwelled on the advantages of having a strong alumni association and encouraged them to play a proactive role in college affairs.

Some of the alumni members reminisced about their stay in the alma-mater and how college life had played an important is shaping their careers, besides opining about their corporate life and skills required to make a successful career. The valuable suggestions on the future prospects and priorities were cheerfully appreciated by the current students.

The meeting ended with all the participants concurring that the alumni could play an active role in the growth and development of the college and a pledge to make this endeavour grow. Towards this end an exclusive alumni e-group with email ID [go-for-andc@googlegroups.com](mailto:go-for-andc@googlegroups.com) was created and Mr. Munish Sharma (1994 batch) kindly

agreed to carry on with his yeoman efforts to rope in more and more alumnus in the capacity of Convener.

## **DEPARTMENTAL ACTIVITIES**

### **Department of Biomedical Sciences**

The inaugural function of Cathexis, Society of Department of Biomedical Sciences was held on 26 July, 2009, wherein Dr. Aditya Mittal, Associate Professor, School of Biological Sciences, IIT Delhi introduced students to the wonderful yet complex world of “Dynamics of biological phenomena specially those involving biological membranes”. In his talk he discussed the behavioral aspects of biological membranes and how their performance could be influenced with varying degrees of physical movement. In continuation the department celebrated completion of ten years with great fervor and enthusiasm on 4 December, 2009. Various inter-college competitions were held and an active participation from students of other colleges ensured a healthy congregation of about 120 students. On this occasion Dr. K. Narayansami, Vice-President, The Centre for Genomic Application (TCGA) enlightened the students and faculty on the future prospects of personalized medicine. Topic of his talk was: “Potential of Pharmacogenomics”. Dr. Rajesh Gokhale, Director, Institute of Genomics and Integrative Biology (IGIB) captured the students’ attention and imagination by his talk on “Evolution vs. Intelligent Design: Understanding Biological Systems Diversity”. The departmental society brought out its annual magazine BIOMER wherein the theme this year focused on the contemporary topic of Pharmacogenomics, which is the science that examines the variations in genes that dictate drug response and explore the ways these variations can be used to predict response of a patient to a drug. Various reports and articles on this subject covered in this year’s edition. In the guest article column, Dr. Gauri Kapoor, Rajiv Gandhi Cancer Institute, Delhi sent her thoughts on the subject. The department also organized an interactive session of students and faculty with Open Source Drug Discovery (OSDD) team from Institute of Genomics and Integrative Biology (IGIB) on 20 July 2010. Dr. Ramchandran and Dr. Anshu Bhardwaj introduced the concept of OSDD, its objectives and how everyone could contribute to this international consortium, working towards the discovery of new drugs against tuberculosis.

Twenty nine students, three faculty and three non-teaching staff of the department went on an educational trip to Department of Biophysics, Punjab University, Chandigarh on 23 December 2009. The Students visited the Cell biology, Molecular biology, Biochemistry and Biophysics laboratories and got acquainted with the experimental facilities there. They interacted with Prof. Fateh Singh Nandel, a senior faculty member. Picturesque, snow-clad Manali lying enroute during the excursion was also visited and thoroughly enjoyed by one and all.

### **Department of Botany**

The Department of Botany initiated its academic year with a well planned orientation of newcomers and selection of student office-bearers for their society – Tarumitra. In the

first departmental society meet held in September, 2009 the department hosted eminent scientist Prof. Paramjeet Khurana, from Department of Plant Molecular Biology, University of Delhi South Campus. She delivered a talk on 'Genes and Genomics - its application in Plant Sciences' that highlighted the role of genomics in understanding the basics of plant sciences besides explaining how genomics could be a viable career option for young botanists. Furthering the cause of taking academics beyond the classroom the department organized a visit to Yamuna Biodiversity park for the final year students. The students got an opportunity to observe how recreation of a suitable habitat could check and then bring back flora and fauna fast vanishing from Delhi. In continuing with the exposure for the students and meeting curriculum obligations a trip to Western Ghats, considered to a hot spot in terms of biodiversity was organized for students of B.Sc. (H) Botany and B.Sc. (Prog.) Life Sciences. The trip gave an opportunity to students to observe rare phenomenon of plant world as vivipary and negatively geotropic roots in natural habitat. A picnic to 'Garden of Five Senses' organized under the aegis of Botanical Society also helped add to the repertoire of knowledge of the students. With active support from the faculty the students prepared and organized annual festival of the society 'Tarumitra' and fully utilized the opportunity to showcase their talent in events including rangoli design, paper-presentation, just-a-minute, ad-mad etc. The department this year has thus successfully been able to create a mix of studies and extra-curricular activities for the students and sincerely hopes to continue its efforts for years to come.

### **Department of Chemistry**

The department flagged off its society's inaugural function in October 2009 with an enlightening and instructive talk by Mr. Jagat S. Jawa, Director General, Solar Energy Society of India. His talk explained the necessity of renewable energy in the world and the various means adopted to produce it. The talk was relevant and more so in the Indian context since it highlighted the uneven distribution of energy in India due to geographical-socio-economic causes. From his talk the audience felt inspired to inculcate judicious use of energy as part of their daily life.

The department organized its inter-college annual festival - Synergia on 4 December 2009 where the events included scientific paper presentation, quiz, poster making, rangoli design and fun-medley. Ms. Swati Jha and Ms. Preeti Jha of B. Sc. Chemistry (H) – III secured top honours in paper presentation competition giving strength to fact that concept of beyond the classroom is catching on.

### **Department of Commerce**

The department organized a talk on 3 September 2009 by Professor Madhu Vij of Faculty of Management Studies, University of Delhi and Ms. Mansi Gupta, Director, Wordsworth Institute. Professor Vij delivered a very informative and thought provoking lecture on "Financial Services - Seizing the opportunities" which basically gave an account of the existing financial sector worldwide. In the talk she described in detail how the credit rating system affected the financial institutions in USA and how bringing in the same was going to influence the Indian economy. Advantages of pursuing professional

courses including MBA, CA and CS also found mention in her talk which dwelt mainly on the creating an awareness on marketing and financing. The lecture delivered by Ms. Mansi Gupta on “Grooming for placements in Financial sector” was appreciated very much by the students which focused on development of good interaction skills necessary for corporate life. Her lecture described the importance of a confident body language, mode of answering queries during the course of an interview. The students gained a lot in terms of the understanding of the presentation skills and communication skills.

### **Department of Computer Science**

The department organized its inaugural function on 4 September 2009 and an informative lecture by eminent speaker Mr. Sanjay Kumar Dhurandher, Assistant Professor, NSIT, University of Delhi on the topic “Clustering in MANETS” asset the ball rolling for the year. With his expansive knowledge in fields related to networking and ad-hoc wireless networks, the students had a gala time soaking up knowledge in the latest techniques. The other speaker Dr. Sudharkar Yerneni, country manager, CRAY computers shared facts related to scientific applications of parallel programming.

Turing society of Computer Science Department held its annual technical festival TECHNOVISION - 2009 on 18 December 2009 that was inaugurated by Mr. Saurabh Jain, CEO, Thinvent Technologies. An amalgamation of technical and non-technical skills of IT students the festivities included events like “Techno Speak” by Mr. Saurabh Jain, CEO, Thinvent Technologies, JAVA Juggling, Quiz to name a few. Needless to state only the geeks could be successful.

A two-day workshop on DRUPAL: A content management system, was conducted on 8 – 9 February 2009 in the college wherein Mr. Abhisek Nandakumar a final year student explained its workings with hands-on sessions on creating, managing and publishing content on the web. This was one workshop where the audience consisted mostly of faculty members from various departments. The workshop encompassed introduction to concept of DRUPAL with hands-on session related to working on ‘wamp servers’. The audience found the concept very interesting and was able to appreciate the immense potential of FOSS.

### **Department of Electronics**

Electronica, the society of department of electronics organized its annual festival “Electroshock 2009” in which Professor R. K. Patney, Head, Department of Electrical Engineering, IIT Delhi shared his vast repertoire of knowledge and expertise with students of the college. The well participated function involved many inter-departmental, academic and talent based activities for the students like Technical Paper Presentation, Talent Hunt, Quiz to name a few. In addition to these activities, students of department of electronics staged a well-admired short play delivering the very relevant message of “No Smoking”.

The department has undertaken pioneering effort to initiate the process of starting a student chapter of SPIE — The International Society for Optical Engineering to promote the concept of Photonics amongst students. SPIE is the international society for optics and photonics founded in 1955 to advance light-based technologies. Serving more than 188,000 constituents from 138 countries, the Society advances emerging technologies through interdisciplinary information exchange, continuing education, publications, patent precedent, and career and professional growth. SPIE annually organizes and sponsors approximately 25 major technical forums, exhibitions, and education programs in North America, Europe, Asia, and the South Pacific. It is one of the most prestigious societies in the world and having a chapter in college would go a long way in influencing the choice of career option of the students.

### **Department of Life Science**

This year Department of Life Sciences had maiden function of their departmental society 'Zoe - The Life Sciences Society'. Zoe gave the students an exclusive platform that they could call their very own and perform all associated functions with a fervor that demonstrated a deep sense of belonging. The inaugural function was flagged off with enthralling lectures of Professor M. K. Pandit, Department of Environmental Sciences, University of Delhi and Dr. G. S. Sodi from Forensic Department, SGTB Khalsa College, University of Delhi. Professor Pandit's talk bordered on the current environmental problems and hazards associated with them. The goings-on at the world meet on climate change held at Copenhagen figured prominently in it and the awareness generated attracted a lot of appreciation.

Dr. Sodi's lecture discussed various techniques adopted by forensic experts to solve cases of crime and the recent technological advances that made tracing offenders easier. He also discussed at length the help that technology provided and that could withstand extreme scrutiny in the court of law. The students impressed with the possibilities also enquired about one-of-a-kind course Post Graduate Diploma in Forensic Sciences being run by University of Delhi at SGTB Khalsa College.

### **Department of Mathematics**

The Department of Mathematics had the good fortune to be able to host Dr. K. B. Bhatnagar, Director, Centre for Fundamental Research in Space Dynamics and Celestial Mechanics, Delhi. In his talk on 3 December 2009 he explained at length about the intricate nature of space, the origin of black holes, obscurity of galaxies, and behavioural aspects of our own solar system. His lecture elicited several questions and set-off many active discussions amongst all the participants. After listening to the talk those in the audience realized the important role played by mathematics in governing all astronomical phenomena besides also appreciating the fact that how little humans know about heavenly bodies in general despite having spent billions of dollars in the name of research. The students after taking in all the specifics and particulars participated in more worldly pursuits including Mathematical Quiz, Poster Making and Debate.

## **Department of Physics**

Space science has captured the imagination of many a student in India especially after the stupendous success of “Chandrayan” satellite launch by Indian Space and Research Organization (ISRO) and investigations carried out by it on the lunar surface. Such has been the success of the mission that even NASA lauded the efforts of the Indian scientists and publicly acknowledged the functional relevance of the data collected. In the current scenario it is but natural that the Department of Physics took “Space and Astronomy” as the theme for the year 2009. The theme also had a concurrent overtone as the year 2009 was declared as “International Year of Astronomy” by UNSECO and International Astronomical Union (IAU). It was therefore apt to launch the proceedings of the Physics Society function Physentropy 2009 with an informative lecture by Dr. N. Rathnasree, Director, Nehru Planetarium, Delhi on 22 August 2009. In her talk Dr. Rathnasree gave an overview of what space science entails discussing at length astronomical phenomena like eclipses, formation of galaxies, supernovas, heavenly bodies and even red-shift. She dwelled at length on the rich scientific heritage that existed in India since ancient times taking the specific case of the architectural features of Jantar Mantar, the historical observatory in the heart of Delhi. She also talked about the ways of determining the latitude, time etc. as also existence of precision tools for measuring declination and other related coordinates of various heavenly bodies within the great sun-dial. Thereafter, she enrolled the eighteen students of the department in the astronomy club. This inspired all of them to take part in various projects taken up by the planetarium throughout the year.

After the motivational talk and marvelous presentation it was but natural for the Physics department students to take the cause of Astronomy further and as a follow-up they participated in a seminar at the Nehru Planetarium on 4 September 2009. In the seminar they were exposed to the core group of Nehru Planetarium and Science Popularization Association of Communicators and Educators (SPACE) as the two associations working on the problem of different types of light pollution, and ways of prevention in different cities in order to make the study of astronomy easier. In the seminar the students got hands-on training on various techniques of counting the number of stars in the sky. All the students were amazed to see Delhi’s night sky as it used to be fifty years ago. The fascinating facts, images & illustrations that the students were introduced to in the seminar left a lasting impression on the young minds and who knows in days to come the college may well become a proud alma mater of a budding space scientist.

## **Department of Sericulture**

Department of Sericulture organized a two-week visit to Central Sericultural Research & Training Institute (CSR&TI), Mysore and Summer Training Programme on Silk Dyeing and printing at Central Silk Technological Research Institute (CSTRI), Bangalore for the students of B.Sc. (Programme) Applied Life Sciences – II & III during 15 June 2009 to 03 July 2009. This visit and training programme aimed at providing an insight into different aspects of pre-cocoon sector of sericulture industry, techniques pertaining to dyeing and printing of silk fiber/fabric, post cocoon technology aspects of silk industry and field visits to Sericulture industry in and around Bangalore. The students got

exposure to various sections like mulberry farm division, sericulture engineering section, chawki rearing center, weather station at mulberry breeding and genetics section, silkworm pathology, silkworm physiology and silkworm genetics sections.

At CSTR, Bangalore students were introduced to aspects encompassing role of water in wet processing of silk (degumming, bleaching, dyeing, printing etc), water management in silk industry, scientific colour perception, silk finishing, computer-aided colour matching, colour fastness tests, role of textile testing lab and lab accreditation. A field visit to the silk industry in and around Bangalore was also undertaken by the participants. Following in the steps of the extensive educational visit to Bangalore, a study tour to non-traditional sericultural areas of Palampur Himachal Pradesh, an area well known for temperate tasar sericulture (Non-Mulberry Sericulture) was organized for students of B.Sc. (Programme) Applied Life Sciences – II & III with the help of Regional Office, Central Silk Board, New Delhi and Research Extension Center, Palampur of Central Tasar Research & Training Institute (CTR&TI), Ranchi. During this tour, students got familiar with various aspects of oak plant cultivation, oak tasar culture, temperate tasar silkworm egg production techniques.

Sericulture society Cocoon organized its inaugural lecture on “Silk Mark and Avenues in Silk Industry” on 7 September 2009 that was delivered by Mr. S. L. Jain Assistant Director (Inspection) and Silk Mark Executive (SMOI), Central Silk Board, New Delhi. His talk emphasized the importance of Silk Mark as a quality assurance tool and procedures adopted by Silk Mark Organization of India besides pointing out the career avenues in silk industry.

### **Department of Zoology**

The Department of Zoology under the tutelage of its departmental society “Niche” organized a lecture on “Advances in genome sequencing technology” on 29 August 2009. Eminent speaker Dr. Sailesh Gochait, a maverick application support specialist from Labindia Lifesciences Pvt. Ltd., Gurgaon introduced the students to the fascinating concepts of classical DNA sequencing through to the most recent sequencing platforms. Beginning with a historical perspective, the speaker slowly gravitated towards techniques, employed to sequence the genome of organisms besides the development of extensive existing and upcoming sequencing methods. Applications related to gene sequencing techniques in next generation medical care systems particularly infused a great enthusiasm and generated curiosity amongst students. The informative talk was followed by a skit by the college students on Adulteration of food that by being one of the contemporary topics was well timed and garnered appreciation from everyone.

The Department followed up by organizing a collage making competition on Creating awareness about the spread of Swine Flu virus on 20 September 2009. The inter-departmental competition saw active participation and two teams of second year students from B.Sc. (Prog.) Life Sciences and B.Sc. (H) Zoology were awarded prizes.

### **SOCIETY/COMMITTEE REPORTS**

## **Entrepreneurship Development Cell**

In order to promote and encourage young entrepreneurs, Acharya Narendra Dev College has set up an Entrepreneurship Development cell (EDC). The main objective of EDC is to create self-employment opportunities and upgrade relevant skills of potential entrepreneurs. To achieve these objectives, EDC of the college organized two Entrepreneurship Awareness Camps (EACs). The main aim of EACs was to create awareness amongst faculty and students about various facets of entrepreneurship as an alternative career option.

Mr. Neeraj Sharma, Adviser, NSTEDB, Department of Science and Technology, Government of India inaugurated first EDC camp on February 13, 2009; he spoke on "Innovation in Entrepreneurship". The camp involved had interactions with successful entrepreneurs Mr. Manish Nanda, Nandini Industries and Mr. Anant Sandhu, Modulus Systems. The second camp during 11-13 November 2009 was presided over by Mr. Sujeet Banerjee, Director, NSTEDB, Department of Science and Technology, Government of India, and had prominent guests including Mr. Harish Arora, President, Okhla Industrial Association and Ms. Rita Sen Gupta, Director, NIESBUD, NOIDA. Successful entrepreneurs of Okhla Industries shared their stories of success and failure with students while EDC arranged an industrial visit to encourage students to look into the successful run of an enterprise.

## **Environment society**

The society organized an Eco-fest on December 21, 2009 in which Dr. B. C. Sabata, Scientist-in-charge, Department of Environment, Government of NCT, Delhi delivered a talk outlining various programmes undertaken by the Delhi Government for college students. The speaker created awareness amongst the students about the ill-effects of global warming and how famines, water shortages, and extreme weather conditions result as a direct consequence of it. His talk also touched upon the measures that can decelerate the pace of global warming. At the end of the talk everyone concurred that consumption of less energy was the only way to make the planet a better place for future generations. Various competitions including rangoli making using eco-friendly colours, poster making, and paper presentation were organized for creating awareness about controlling global warming on a priority basis.

## **Debating Society**

In keeping with the free-spirit that the college identifies with, the debating society this year chose to deliberate upon a topic of immense collective importance and having far-reaching implications for the society in general. The motion of the debate this year was 'This house believes in a big fat Indian Wedding' and was held on December 22, 2009 as part of the Accenture festival of the college. The topic of the debate was such that it elicited a lot of interesting views from various participants and the show livened up when they argued on the merits and demerits of the great 'once in a lifetime' event called the



Indian wedding. It was especially encouraging to note the degree of awareness of the young contestants and the level of maturity they exhibited in discussing seriously the topic threadbare. Ms. Neha Kapur of B.Sc (H) Physics Part-II and Mr. Pranay Moktan of B.Com. (H) Part-I won the top prizes.

### **Canteen Committee**

Like the age-old adage that the army cannot march on an empty stomach, one of the pre-requisites in a college is a good cafeteria. Realizing the importance of a pleasant and a relaxing atmosphere, the canteen committee renewed the contract with the existing contractor with special emphasis on quality, quantity and hygiene. In order to promote the concept of healthy natural food and beverages including juices, soups and concentrates besides giving a fillip to a state government run enterprise, the committee also redefined the contract terms of Himachal Pradesh Government subsidiary HPMC stall in the college. The committee also addressed one of the long standing demands of the students, regarding availability of a general stationery kiosk within the college premises that also caters to the popular tastes of ice-cream and momos.

### **NSS**

Amongst one of the most active committees in the college is the NSS unit and with over 250 active volunteers, the committee has been proactively working hard to inculcate the spirit of self-less commitment to address social issues plaguing the society.

This year the NSS committee began their work in the right earnest by kicking off an anti-tobacco campaign during the college orientation programme on July 14-15, 2009. The two sensitization sessions organized in association with “World Lung Foundation South Asia” (WLFSA) involved informative talks by Dr. Rakesh Mahajan and Dr. Lokesh Gupta who emphasised the harmful effects of tobacco. The efforts were in line with the Smoke Free Initiative campaign launched by University of Delhi. As a major follow-up, a declamation contest on ‘Tobacco Route: A Journey to Death’ was organized on September 24, 2009 that saw thought evoking contributions from participating young minds. The most impressive performances were given by Amrita Chakrabarty (B.Com (H) Part-I), Megha (BMS Part-I) and Pranay Moktan (B.Com (H) Part-I) who bagged first, second and third prizes worth Rs. 1100/-, Rs. 700/- and Rs. 500/- respectively. A special prize was instituted spontaneously by the Principal was given to Mr. Abhay Kant Srivastava (B.Sc. (H) Physics Part-I) for the depth and correctness in content besides erudite expression in Hindi. As winner Ms. Amrita Chakrabarty represented the college in the inter-college declamation contest organized by WLFSA at Hansraj College espousing the cause of “Motivation, Legal Enforcement, and Taxation in Tobacco Control”.

The NSS Committee was instrumental in organizing a Blood Donation and Thalassemia Screening Camp on October 30, 2009 working in tandem with GTB hospital. Enthused donors helped collect 167 units of blood while tests carried out with their samples made

them aware about the type/concentrations of Hb, Blood Group, MP, HbsAg, HCV, VDRL, HIV I and II etc.

Annual Diwali Mela 'SAHYOG' was organized on September 24, 2009 that saw an active participation by seven NGOs working for differently-abled people. Articles including candles, decorative materials, handmade products, diyas and various stationery items made by inmates of Aanchal School, All India Federation of the Deaf, Aastha, Delhi Cheshire Home, Jan Madhayam, and Prerna Niketan Sangh were put on sale and proceeds to the tune of Rs. 16,000/- could be notched up by early afternoon.

The college constituted the Red Ribbon Society to spread awareness about HIV-AIDS with active support from DSACS; the society held its inaugural function on October 29, 2009 with a public lecture by Mr. Mateen Khan, Consultant, Voluntary Blood Donation, Delhi State AIDS Control Society. The society was instrumental in spreading awareness on world AIDS day by staging a street play, followed by poster making competition, debate, essay writing competition and screening of a film.

With Commonwealth Games 2010 round the corner, Ministry of Youth Affairs and Sports, Government of India requested the college for 100 NSS volunteers. The NSS unit launched the campaign for mobilization of NSS volunteers in association with college Proctorial committee in the hope of actively contributing to the requirements of the country – the college met more than its target – we registered 273 volunteers!

The college NSS unit attended the festival organized by NSS Centre, University of Delhi at Sir Shankar Lal Hall on during December 9-10, 2009 that included a panel discussion on "Youth as a Catalyst of Social Change. The college unit made a presentation in the form of a streaming slideshow with voice over, on the NSS activities of the college.

The NSS unit of the college also actively participated in National Youth Camp held in Kanyakumari and National Integration Camp, Gurgaon. Being socially aware to the needs of the disadvantaged the unit was able to raise Rs. 7000/- for Delhi Foundation of Deaf Women.

The NSS initiative of the MHRD in collaboration Desert Boys Rajasthan that saw two college students undertaking a week long odyssey amongst the undulating sand-dunes of Jaisalmer along with faculty member Mr. Sadanand Prasad. The Desert Safari of the motley group of 33 people who came from all parts of the country undertook adventurous overtures including a camel ride, visiting a real (as against urban 'villages') village nestled somewhere near the border, seeing the operation of a wind power station and even taking rides in a local 'mela'. The team came back with stories of trekking in the sand-dunes of a desolate desert and beautiful night-sky with millions of stars.

Last but not the least the NSS unit of the college in collaboration with R. G. Stone Urology and Laparoscopic Centre, conducted a free clinic on 17 February 2010 for checking the health status of college employees. This was followed by NSS unit helping Aastha, an NGO working towards upliftment of physically challenged children organize

their sports day in the college lawns. The NSS volunteers contributed gifts and prizes for children of Astha worth Rs. 1000/- from their pocket money. The committee rising to the needs of the college community also helped organize a two-day camp on PAN card preparation in the premises during 8 – 9 February 2010. During this time UTI technology Service Ltd., a vendor authorized by Government of India made PAN cards in the college at approved rates.

### **Garden committee**

The college participated in the Annual Flower Show held at the University Grounds in February 2009. Several saplings and seasonal plants were purchased during the year. Lining of the flower beds with bricks has been done and different areas distributed to the gardeners. Garden equipments were purchased and the committee is in the process of purchasing a new lawn mower and a rickshaw for maintenance of the college garden. Two old trees, one of Pinus and the other of Fish tail palm had to be relocated due to ongoing construction work in the college.

### **Sports Committee**

All work and no play makes Jack a dull boy (and Jill.....), and in order to avoid a situation like this the college appointed a Director, Physical Education (DPE) in the month of August 2009. Along with purchasing new sports equipment and beefing up sports facilities, the college held trials for various events in September 2009. A football coach was appointed to train the college team which participated in the Inter-college tournaments in October 2009.

### **Placement Cell**

The placement cell has emerged as a professional entity establishing linkages with prospective employers, industry associations and other such placements cells of institutes in Delhi. A Hundred and nineteen students were registered this year; they availed the benefits offered by the Placement Cell through career counseling seminars and campus recruitment drives. Placement Cell has entered into an understanding with Okhla Industrial Association to bring opportunities for students not only for jobs but for summer training programs as well. Networking with the placement cells of other University of Delhi colleges and Central Placement Cell, it has been bringing off-campus opportunities as well, to the aspiring students of college. Throughout the year the college Placement Cell organized the following interactive sessions for the benefit of the students

- a) Memory mapping - How to improve memory - by Mr. Jitendra Tiwari
- b) Opportunities after graduation - by Delhi Business School
- c) Opportunities in Clinical Research - by Indian Clinical Research Institute, Delhi
- d) How to go abroad for further studies - by Edwise International

Some of the companies that visited the college campus and/or offered employment opportunities to the college students through Central Placement Centre of University of

Delhi (CPC) include Wipro WASE, Wipro Technologies, ATS Securities, Wipro BPO, HDFC Standard Life Insurance, Ernst & Young, Tech Mahindra, NDPL, Genpact, Xchanging Insurance Services, Capital IQ, HCL-BPO, MIE Pvt. Ltd., Advent Medical Technologies, Indigo Airlines.

Six students have already got job offers from the companies who visited ANDC campus while results from CPC are still awaited. The process for annual Central Campus Placement through WIMS program of WIPRO Infotech Ltd. is also underway.

### **Scholarship and Awards committee**

Towards the fulfillment of the aim of providing financial assistance to needy and deserving candidates, Scholarship and Awards committee adopted a proactive approach right from the very beginning of the academic year. The committee held official interviews followed by personal interaction with 53 students of the college during the period 1-2 September 2009 and awarded financial aid in the various categories mentioned as here-under:

- (i) 6 students were given full fee concession
- (ii) 50% fee waiver to 6 students
- (iii) 14 students were given a stipend of Rs. 500 for a period of 10 months

The committee after due scrutiny, forwarded application forms of many students to various organizations including Sita Ram Jindal Foundation for scholarship, All India Entrance scholarship, Kalaskar Educational Services, Shankar Dayal Gold medal scholarship and Subodh Chandra Amya Banerjee award by the University of Delhi to name a few. The committee has also undertaken the onus of preparing a consolidated Question Bank for the students, to help them gain a thorough understanding of their subjective know-how.

The committee also helped short-list student recipients of Teena Gupta memorial scholarship and D. C. Arora scholarships.

### **IT Committee**

Many of the students who take admission in the college come from backgrounds where they are yet to be exposed to skillful use of computers pervading all areas of life. Also good multimedia presentation skills form an integral part of course curriculum besides being necessary during corporate life. Keeping these points in mind the committee took the initiative to organize a One-day hands-on workshop on 'Basic Computer Training Programme' that was conducted over five days from August 1, 2009 so as to reach most of the first year students. The workshop curriculum consisted of introduction to word processing, slide preparation and presentation techniques, internet browsing, searching for journal articles and e-learning materials on the web. A brief outlook of the Office suite was also provided to make students aware of the various options available. The

course participants appreciated the enterprising nature of the workshop, which made them well equipped for skillful use of computers.

In line with the preferred use of Free Open Source Software System (FOSS), the college decided to adopt DRUPAL - A Free and Open Source Content Management System for administering its existing website and enhancement. To introduce DRUPAL to faculty and students, a two-day workshop was organized from February 1-2, 2010 in the college premises. With active participation from 16 faculty members and 34 students, the aim of the workshop was to impart hands-on training to develop, organize, manage and publish content for the college website. During the workshop, participants learnt to install basic DRUPAL, publish text and pictures, webpage linking and configuring user registration settings.

## **ADD-ON COURSES**

### **Yuvodaya: ANDC – METLIFE initiative**

Many initiatives are being run by the college in collaboration with business conglomerates for preparing students for the corporate world. One such initiative Yuvodaya is a University of Delhi certified course on insurance being conducted in alliance with MetLife, a behemoth in the insurance sector. The courseware designed around nine weeks of extensive classroom teaching by certified Metlife faculty is followed by four weeks of on-job-training. The curriculum that envisions introducing students to the opportunities available in the insurance industry, its working principles and concepts of insurance, soft-skill development, corporate grooming, awareness about Insurance Act and IRDA Regulations, concept of ULIP and NAV besides overview of products like annuities and pension schemes. After completion of course, successful candidates could be offered positions by MetLife. Looking at the response that the course has received since its inception, it is sure to become a great success.

### **English Language Proficiency Course**

English that is the universal language in the cities is often perceived to be a barrier for those students who come from far-flung parts of the country or for those students who did not study in an English medium school. Looking at the pressing need to bridge the great social divide the college took the onus of joining the initiative taken up by the Institute of Life Long Learning, University of Delhi by conducting an English skills and personality development course called 'English Language Proficiency Course'. This 100-hour course helped the students improve fluency, diction, pronunciation, public speaking capabilities and expression that are expected to pay dividends when they appear in interviews or go for public speaking in the course of their career. Fourteen students successfully completed the course and received certificates for the same which was quite a sizable number considering the fact that the course was being run for the first time. They appreciated the course content and innovative methods adopted to teach them the intricacies of the language.

## Effective Communication and Personality Development through Theatre

A 100-hour short-term add-on course on 'Effective Communication and Personality Development through Theatre' was conducted in the college from August 1 – October 8, 2009. The course had several people associated with National School of Drama (NSD) as Resource Persons such as Mr. Lokender Trivedi, Mr. Shrivardhan Trivedi, Mr. Avtar Sahni, Mr. Bhunikeshvar Singh, Ms. Jilmil Hazarika, Ms. Nalini Joshi and Mr. Ajay Manchanda. The course inspired by vision of life-skills-based education of UNICEF and WHO seeks to hone-in skills such as effective communication, dynamic leadership through problem solving, critical thinking and decision-making, ability to think creatively and act confidently amongst students through acting, improvisations, performances and scripting, teamwork and interpersonal relationships skills. These focus on relationships with the self, friends and family, and society, self-management and self-awareness building skills through effective conflict management, negotiations and the ability to cope with stress and manage time effectively.

The course included exercises such as associating one's name with a new product and making creative advertisements for marketing of the imaginative product; description of one's self in a few words; sharpening of one's imagination by making mountain out of a mole-hill by just hallucinating, writing a story by just listening to a piece of music, standing like a statue followed with characters relating to it by others, sharing of secrets by participants, *chau* dance to improve body fitness, trust and voice modulation exercises etc. The students were also taught as how they should speak, dress, walk, and present themselves on different occasions. The purpose was to enhance both verbal and non-verbal communication skills of students and making them more creative, confident in presenting their views by overcoming their weaknesses.

## NEW APPOINTMENTS IN 2009-2010

### Teaching and Non-Teaching Staff

<b>TEACHING</b>			
<b>S. No.</b>	<b>Name</b>	<b>Department</b>	<b>Date of Joining</b>
1.	Dr. Vikrant Kumar	Chemistry	18.03.2009
2.	Dr. Rajesh Chaudhary	Biomedical Science	19.03.2009
3.	Dr. Udaibir Singh	Electronics	20.03.2009
4.	Dr. Ravneet Kaur	Electronics	20.03.2009
5.	Dr. Rashmi Sharma	Botany	24.03.2009
6.	Dr. Pankaj Khanna	Chemistry	01.04.2009
7.	Mr. Chaman Singh	Mathematics	01.04.2009
<b>NON-TEACHING</b>			
<b>S. No.</b>	<b>Name</b>	<b>Department</b>	<b>Date of Joining</b>
1.	Mr. Hari Ram	Laboratory Attendant	19.03.2009
2.	Mr. Ram Kumar Singh	Laboratory Attendant	19.03.2009

3.	Ms. Sangeeta Goswami	Laboratory Attendant	24.03.2009
4.	Mr. Harish Kumar	Laboratory Attendant	25.03.2009
5.	Mr. Ashutosh	Laboratory Attendant	19.03.2009
6.	Mr. Prem Singh	Laboratory Attendant	19.03.2009
7.	Mr. Mahesh Chander Kandpal	Laboratory Attendant	19.03.2009
8.	Mr. Ashok Kumar	Laboratory Attendant	23.03.2009
9.	Mr. Virender Kumar	Laboratory Attendant	23.03.2009
10.	Mr. Jai Karan Singh	Laboratory Attendant	19.03.2009
11.	Mr. Harendra Kumar	Library Attendant	14.05.2009

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**LIST of PUBLICATIONS (ANNEXURE)**