

Annual Report 2014



OPEN EDUCATIONAL RESOURCES
FOSS
WIKIEDUCATOR
DIWANI
ECPDT
ANNUAL THEATRE PRODUCTION
NUKKAD NATAK
DHUN
SPICMACAY
RESEARCH BY STUDENTS
ELITE
SURVEY REPORTS
IEDC
INNOVATION PROJECTS
OSDD
PUBLICATIONS
NSS SAHYOG DIWALI MELA
BLOOD DONATION CAMPS
EOC
SARSHAM
SASHAKT
EXPLORE
PARTNATRA
TRAINING AND PLACEMENT
ENTREPRENEURSHIP LABORATORY
BUSINESS INCUBATOR
PLACEMENT CELL
SPIE
OPAL
ROER4D
CREATIVE COMMONS
SPORTS

ACHARYA NARENDRA DEV COLLEGE

Beyond the Classroom...



University of Delhi | दिल्ली विश्वविद्यालय
Delhi-110007 | दिल्ली-110007



Antardhvani 2014

(February 14-16, 2014)

This certificate is awarded to Archarya Nasendra Dev College of _____ for participating in Awards of Good Practices Event during Cultural Festival, Antardhvani - 2014. ~~He/She~~ was awarded Third (IIIrd) position.

February 16, 2014


Prof. Malashri Lal
Chairperson, Antardhvani -2014

Annual Report 2014

Acharya Narendra Dev College Annual Report *Session 2013 – 2014*





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1. Introduction

Permanence, perseverance and persistence in spite of all obstacle/s, discouragement/s, and impossibilities: It is this, that in all things distinguishes the strong soul from the weak.

Thomas Carlyle

At ANDC, what we believe in, and what we practice is so strong, that in spite of all the obstacles and discouragements, we have been persistent in our efforts and achievements.

In the year 2013-14, we have been recognized for our perseverance and persistence in multiple ways.

Foremost, we have again won the '**Award for Good Practices**' – a competition among all 63 colleges of the University of Delhi. The award was based on evaluation of practices by colleges at their respective campuses and what colleges displayed at their stalls during Antardhvani 2014. The theme for this year's competition was Four Year Undergraduate Programme (4YUP).

At the heart of 4YUP are the Foundation Courses (FCs) that envisage grooming students into responsible citizens, who besides being academic high performers are also aware of real-life problems. This philosophy is in line with the '**Beyond the Classroom**' approach that Acharya Narendra Dev College believes in and has been practicing for many years. Creative thinking, problem-solving and research are central to the academic programmes in the College and teachers constantly endeavor to make teaching-learning process interesting by creating an environment of proactive collaboration.

To implement FCs in true spirit, the College adopted an inter-disciplinary approach – students belonging to different streams were grouped together in a class, sharing activities and projects. The students were involved in learning process through presentations, video conferencing, demonstrations, projects, educational films, documentaries, TED talks, group discussions, debates and skits. 4YUP has helped students in broadening their academic base and inculcating a sense of social and personal responsibility and pride. It has enabled students to work as a team and also fostered leadership qualities.

ANDC faculty members are not only mentoring the 4YUP students in their classrooms but have also created study material for them. Many of the faculty members are involved in writing chapters for DC-I courses and modules for FC courses.

At ANDC we believe that true education can only be attained in a collaborative, sharing and *an open* environment. Under such conditions, there is neither space for proprietary software nor copyrighted materials. The College's commitment to Open Educational Resources (OERs) started in 2006. The exposure led to the realization that only such a paradigm – wherein content is free of copyright – can help spread knowledge in India. Content can only be considered free when they allow the following 4 R's – Reuse, Revise, Remix and Redistribute.

ANDC has committed itself for use of Free and Open Source Software (FOSS). FOSS Club of the College, established in 2007 has been conducting hands-on training and workshops towards popularization of Linux and FOSS. Almost all the computers in the College are working on Ubuntu OS.

My own personal commitment to knowledge sharing, to FOSS and OER led the College to be internationally recognized last year with 'the OPAL Award of the Open Educational Quality Initiative', a consortium including UNESCO, ICDE, EFQUEL and several European Universities working to promote open educational practices in higher and adult education.

I have been active in national and international spheres to promote the cause of OER. Commitment towards release of OER under Creative Commons (CC) license has led the College to being recognized as an ***Affiliate of Creative Commons in India*** (May 2013). ANDC along with two other affiliates in India – Wikimedia India & Center for Internet and Society, Bangalore – organized the 'Relaunch of Creative Commons in India' in November 2013 at New Delhi.

The third reason for pride was that Ministry of Micro, Small and Medium Enterprises (MSME), Government of India, has sanctioned the establishment of the first '***Business Incubator***' of the University of Delhi at ANDC. It was again a result of our persistent efforts to promote entrepreneurship through **Innovation & Entrepreneurship Development Centre (IEDC)** since 2010. The Centre was set up to allow students to explore entrepreneurship as a career option – to become job creators rather than job seekers. Under IEDC, the College established an **Entrepreneurship Laboratory (EL)** in

2013 to allow students to experiment in setting up small enterprises and learn hands-on what it means to do so.

The home project of ANDC Entrepreneurship Lab is '**ANDY**' which stands for **Acharya Narendra Dev Youth** – the first in-campus student-run company in DU. ANDY involves students in the development of eco-friendly herbal personal care products. After being a part of ANDY, many students have already started their own ventures and others are in the process of doing so.

Besides these major achievements by the College there are many other significant ones by the faculty and student members. Our students have been an important part of the Gyanodaya Express of University of Delhi. This year ANDC is the only college who has got two projects / teams selected for this educational journey.

This has been a year of mixed emotions wherein we had moments that made us smile and also some that brought a tear in the eye. This year two of the earliest people to join the College Ms. Shruti Dhingra (Professional Assistant, Library) and Ms. Veena Saini (Librarian) superannuated from their services after successfully serving the College for a long time. But we were shocked when one of our colleagues, Mr Satish Kumar Yadav (Laboratory Assistant, Chemistry) had a tragic and untimely demise on June 20, 2013. The College feels very sorry for his family and is with them in this moment of grief.

There are many other important developments in the College during the year and are listed in the sections that follows.

2. Research

ANDC's commitment to research is an important contributor in deepening community understanding of unique role research can play in meeting global challenges in higher education.

One of the greatest strengths of Acharya Narendra Dev College is the volume and scale of genuine and exciting research activities carried out by its faculty members and students.

2.1 Research Initiatives at UG Level

2.1.1 Summer Projects and Training Workshops for Students

ELITE – ‘Education in a Lively, Innovative Training Environment’ Summer Fellowship:

In 2013 summers, 75 students took up 2-month duration projects under ELITE scheme. Each student was given a fellowship of Rs. 1000/- p.m.

S.No.	Title of the Project	Department
1.	Predicting the habitat of the bacteria from its proteome using machine learning approach	Biomedical Science
2.	Isolation and purification of Mycobacteriophages from soil samples	Biomedical Science
3.	Literature survey project on "Interaction of self-assembled nanoparticles with drug and drug-like molecules	Biomedical Science Chemistry
4.	Bioassay of carbohydrates, proteins and fats in legumes	Botany
5.	Survey based project on decision making ability of class XII students to choose course for higher studies	Chemistry
6.	Water pollution studies of river Yamuna and its tributaries	Chemistry
7.	Water pollution studies of river Ganga and its tributaries	Chemistry
8.	Water Pollution studies of river Hindon and its tributaries	Chemistry
9.	Mechano-chemical method for preparing derivatives organic compounds	Chemistry
10.	Extraction of crude natural product from plant <i>Syzygium cumini</i> (jamun)	Chemistry

S.No.	Title of the Project	Department
11.	To study the activity and stability of the tyrosinase enzyme by extraction from its natural source	Chemistry
12.	Redesigning undergraduate organic lab experiments through a greener and economic pathway	Chemistry
13.	Effective delivery of therapeutic drugs: Design, synthesis and evaluation of biodegradable carriers	Chemistry
14.	Role of cellulose based polysaccharide resin as biosensor	Chemistry
15.	Study of novel polysaccharide resin as biosensor	Chemistry
16.	To determine the saponification value of given oil samples & Isolation of caffeine from tea leaves	Chemistry
17.	Synthesis of cuprous complex of a thio Schiff base derived by a green method	Chemistry
18.	Estimation of hardness and concentration of arsenic in groundwater of Delhi and NCR and hence compare the quality	Chemistry
19.	Synthesis of a heterocyclic Schiff base and its copper complex and checking its antibacterial properties	Chemistry
20.	Extraction of toxic metal ions from wastewater using kitchen waste like vegetable and fruit peels	Chemistry
21.	Synthesis of thiourea based Copper (I) complex and checking its biological activity	Chemistry
22.	Understanding data acquisition and its real world applications using LabVIEW	Electronics
23.	To study data acquisition through LabVIEW and its application in real time	Electronics
24.	H ₂ S and NH ₃ emanated by the Yamuna are poisoning the air	Mathematics
25.	Detection of range of radiation and location of antenna in various cell phones	Physics
26.	Detection of range of radiation in different model of cellphones and to study the difference in GSM and CDMA cellphones	Physics
27.	Comparison of protein profiles of ciliates from polluted and unpolluted fresh water body	Zoology
28.	Bioremediation of heavy metals using ciliates	Zoology

S.No.	Title of the Project	Department
29.	Protein estimation and separation of proteins in a sample and determination of molecular weight of separated proteins	Zoology
30.	Creation of animal diversity repository as OER	Zoology
31.	Hormono-mimetic effects in the Red Cotton Bug, <i>Dysdercus cingulatus</i> (Hemiptera: Pyrrhocoridae) reared on the diet treated with aqueous leaf extract of <i>Thevetia peruviana</i>	Zoology
32.	Cup culture of earthworms and study of regeneration in them	Zoology
33.	Comparative laboratory evaluation of the effect of various artificial diets on the growth and development of <i>Helicoverpa armigera</i>	Zoology
34.	<i>Solanum nigrum</i> : A biopesticide against <i>Helicoverpa armigera</i>	Zoology Botany

2.1.2 Student-Projects through the Innovation & Entrepreneurship Development Centre (IEDC) 2013-2014

These are year-long innovative research projects under the guidance of a faculty (mentor).

Name of Projects	Name of Students/ Class/Mentor(s)
Development of bioactive paper sensor for determination of pesticide residues	1. Neelam Kumari 2. Premlata Rai [B. Sc. (H) Zoo – III] 3. Asha [B. Sc. (H) BMS – III] Dr. Geetu Gambhir
Development of novel antifungal soap ingredient	1. Aishwarya Ramesh [B. Sc. PS – III] 2. Bhupesh Raj Vaid [B. Sc. (H) Chem – III] Dr. Vikrant Atri
Use of open source tools: Integrating bioinformatics and chemoinformatics for addressing complex problems in Biology	1. Debanjana Chakravarty [B. Sc. (H) BMS – III] 2. Tanaya Chatterjee 3. Manisha Goel [B. Sc. (H) BMS – II] Dr. Gagan Dhawan

Name of Projects	Name of Students/ Class/Mentor(s)
Development of sensor module for gas sensing applications	1. Prayas Tewari 2. Ashish Pokhariyal 3. Pankaj Rawat [B. Sc. (H) Comp Sc – III] Dr. Arijit Chowdhuri
Evaluation of the beneficial properties and formulation of certain useful products from the waste peels of banana	1. Vanshika Kaushik 2. Tanya Maurya 3. Suman Panwar [B. Sc. (H) Zoo – II] Dr. Sarita Kumar
Environment management by chemical waste treatment at the source	1. Shweta Sharma 2. Pooja Rawat 3. Neha Kumari 4. Shubham Biswas [B. Sc. (H) Chem – III] Dr. Seema Gupta, Dr. Manisha Jain and Dr. Geetu Gambhir

2.1.3 University of Delhi at Acharya Narendra Dev College SPIE Student Chapter

This year the SPIE student Chapter organized a two-day workshop on ‘Innovative Pedagogies for Modern Optics and Photonics’ on October 10-11, 2013.

SPIE 2014 President Dr. H. Philip Stahl from **NASA** visited the chapter at the College on March 11, 2014 and delivered a lecture on **“James Webb Space Telescope, the First Light Machine.”**

National and International Conferences attended by Chapter students:

1. Mohammad Aiman Ali Raza; B. Sc. Physical Science – Electronics-III; ‘*Photonics West 2014*’ San Francisco, USA; February 4-6, 2014.
2. Winter school on ‘*Bio-photonics and Bio-imaging*’; SPIE Chapter of IISER, Kolkata; December 26-29, 2013.
3. ‘*Annual Photonics Workshop 2014 - on NanoPhotonics*’; International School of Photonics Cochin University of Science and Technology; February 27-28, 2014.
4. National workshop on **Basic Optics, Fiber Optics and Optical Communication**; Maharaja Agrasen College, University of Delhi; March 8-10, 2014.

2.2 Research Projects

The dynamic and research-oriented faculty has been receiving research grants from several governmental funding agencies; like DU, UGC, DST, DBT, MoEF, ICMR, etc.

2.2.1 Externally Funded Projects

Projects under Progress /Sanctioned in 2013-14

Investigators	Title of the Project	Funding Agency	Rs. (Lakhs)
Dr. Urmi Bajpai (2013 - 2015)	<i>Mtb Mur</i> pathway enzymes: Potential candidates for multi-target therapy	CSIR – OSDD	30.38
Dr. Seema Makhija & Dr. Ravi Toteja (2012 - 2015)	Stress-induced induction of metallothioneins (MTs) gene in ciliates and its use as biomarker to assess environmental pollution	UGC	9.42
Dr. Seema Makhija & Dr. Ravi Toteja (2012 - 2015)	A study on heavy metal-induced stress response at cellular and molecular level in ciliates for the development of a potential biosensor	DST	28.0
Dr. Monisha Khanna (2012 - 2015)	Extraction and activity analyses of extracellular enzymes from soil actinomycetes	UGC	9.72
Dr. Vikrant Kumar (2010 - 2013)	Metal Complexes as anticancer agents: Synthesis, characterization and their tumorigenesis evaluation	DBT	16.11

2.2.2 Innovation Projects sanctioned by DU in 2013-14:

Title of the Project	Faculty	Mentors
Mobile healthcare: the future of health management in India – a feasibility study	Dr. Urmi bajpai Dr. Sarita Kumar Mr. Vishal Dhingra Dr. Amit Garg	Mr. Ananda Sen Gupta, Managing Director, TrackMyBeat Healthcare India Pvt. Limited

Title of the Project	Faculty	Mentors
Development of low cost computer controlled Science laboratory using sensors and open source hardware and software tools	Dr. Amit Garg Dr. Roopesh Tehri Mr. Chandra Kant Samal	Mr. Sunil Piplani, Industry Consultant and Proprietor, Excel Technologies, NOIDA
Astronomy using archival data	Dr. Subhash Kumar Dr. Sharanjit Kaur Dr. Sukanta Deb	Professor H. P. Singh, Department of Physics & Astrophysics, University of Delhi
Artificial olfaction using e-nose – mimicking human nose for gas sensing applications	Dr. Arijit Chowdhuri Dr. Charu K. Gupta Dr. Sunita Narang	Dr. S. P. Singh, Scientist, National Physical Laboratory, New Delhi

2.3 Research Supervision

Supervisor	Student	Thesis Title and Date of Registration
Dr. Monisha Khanna	Dr. Renu Solanki	'Isolation and characterization of actinomycetes and analysis of their antimicrobial potential' (Ph.D. awarded in 2014)
	Ms. Payal Das	'Exploring useful bacteria from soil for production of secondary metabolites' (Registered in March 2013)
Dr. Sarita Kumar	Ms. Radhika Warikoo	'Isolation, identification and characterization of bioactive components in <i>Argemone mexicana</i> with anti-mosquito potential'. (Registered in October 2011)
	Ms. Monika Mishra	'Behavioural implications of host-parasite interactions in <i>Helicoverpa armigera</i> '. (Registered in October 2011)
Dr. Urmi Bajpai	Mr. Eniyan Kanadasamy	'New drugs targets for <i>Mycobacterium tuberculosis</i> ' (Registered in December 2011)

Supervisor	Student	Thesis Title and Date of Registration
Dr. Sunita Hooda	Mr. Shyam Lal	'Synthesis, characterization, kinetics and biological application of some metal complexes.' (Registered in October 2012)

2.4 Research Infrastructure Added

Laboratory	Facility / Instrument Added
Department of Biomedical Science	Gradient Thermocycler, CO ₂ Incubator, Incubator Shaker, Peltier Assembly for UV-Visible Spectrophotometer, Digital Viscometer, Circulating Water Bath
Department of Chemistry	Deionizer Plant, Spectrophotometer, Digital Polarimeter, Automated TLC Coater, and LabQUEST DAQ Devices
Department of Electronics	Microcontroller Trainer Kits, PCB Drafting and Fabrication Setup, Commutated SCR Inverter, MOSFET Based SCR Inverter kit, DC motor-series, DC Shunt motor, Single and three phase induction motors, Phase Controlled Rectifier.
Instrumentation Laboratory	Microwave Furnace for nanomaterial processing, Digital Multimeter, Hydraulic Press, LCD panel (Professional) of size 42" with Digital Signage Player as Electronic Display, Dual Platform Rocker, Vertical Autoclave, Sonicator, Lock in Amplifier, Rotation Stage Integrated with Precision Controller with Accessories.
Department of Botany	Horizontal and Vertical Gel Electrophoresis Units, Binocular Research Microscope, Laminar Flow, Spectrophotometer
Department of Zoology	Single Channel Electronic Micropipettes, Binocular Research Microscope with Camera
Department of Physics	Polarization Experiment Setup, He-Ne Laser, Semiconductor laser, Photo diode I-V characteristic, Agilent Digital Storage Oscilloscopes
Embedded system and Robotics laboratory	Firebird V2560 Robots, Spark V Robots, Zigbee Modules, AVR ISP USB Programmer, IR sensors of different ranges, Digital Gyroscope, Accelerometers, Magnetometers, GPS Receiver

3. FOSS, OER and Creative Commons

Acharya Narendra Dev College, since December 2007, has introduced Linux and other open-source software in the teaching learning process as well as in the administrative offices. In order to accomplish and perpetuate this radical change in the operating system (OS), we need to regularly conduct FOSS workshops for students, teaching and the non-teaching staff.

This philosophy of Free and Open Source Software has gone a long way in building careers of students and in shaping their lives. A lot of our students have joined companies like IBM, Oracle, Facebook etc. which also work on open-source projects. Our alumni have expressed their gratitude to the College for providing them an environment for learning about free software at an early stage.

Richard Stallman, Founder & President, Free Software Foundation was happy to come to our college again this year and give a talk on 'Free Software: Defending your freedom' on January 9, 2014. The talk as usual was very informative and raised a lot of queries.

A college cannot truly claim to be IT enabled unless each stakeholder in the college is IT savvy. Towards that end we conducted the first 4-day workshop on IT Tools for non-teaching staff of the College in December, 2013. We intend following this up with more workshops in the series, every vacation period, till all staff members are satisfied about their IT competency. What is important is that this workshop had some students as resource persons.

The college this year became an Affiliate of Creative Commons in India. I have provided the details elsewhere in this report.

4. Students' Corner

4.1 Students' Achievements, Scholarships and Aid

4.1.1 Merit Positions in University of Delhi (2012-2013)

Name of the Student	Course	Position
Divyansh Mittal	B.Sc. (H) BMS-I	II
Debanjana Chakravarty	B.Sc. (H) BMS-I	III

4.1.2 Positions in University of Delhi South Campus (UDSC) (2012-13)

Name of the student	Course	Position
Rohit Verma	B.Sc. Physical Science –I	I
Nikhil Kumar	B.Sc. Physical Science –I	III
Priya	B.Sc. Physical Science –II	III
Srijan Sagar	B.Sc. Physical Science –III	I
Sunil Kamboj	B.Sc. Physical Science –III	III

4.1.3 Scholarships and Awards

- i) **Science Meritorious Scholarship, University of Delhi:** Ashish Choudhary [B. Sc. (H) Zoo-II] and Anish Kumar [B. Sc. (H) Chem-III]

- ii) Meritorious Scholarship awarded by Govt. of NCT of Delhi (Rs. 10000 each):

Name	Course
Rohit Verma	B.Sc. Physical Science (PMC)-II (awarded for Part I)
Priya	B.Sc. Physical Science (PME)-III (awarded for Part II)
Srijan Sagar	B.Sc. Physical Science (PME)(passed out) (awarded for Part III)

- iii) Shri Sultan Chand Endowment Scholarship: Ms. Anisha Dua, B. Com. (H)-III.

- iv) **Dr. (Ms.) Usha Aggarwal Tejaswini Scholarship for B.Com (H) (2013-2014):**

Divya (Part-II), Akanksha Badola (Part-II) and Gaurav Chitkara (Part-III)

v) Summer Research Fellowships:

Surabhi [B. Sc. (H) BMS-II]	Indian Academy of Sciences (IAS).
Divyansh Mittal [B. Sc. (H) BMS-II]	JNCASR, Bangalore

vi) D. C. Arora Fellowship

Neha Kumari	B. Sc. (H) Chem-II	Needy
Kirti Sharma	B. Sc. (H) Chem-II	Needy
Pooja Rawat	B. Sc. (H) Chem-II	Meritorious
Rohit Verma	B. Sc. PS Chem-II	Meritorious

4.1.4 Co-Curricular Activities

At ANDC we believe that for character and personality development co-curricular activities are very important. Some of the achievements of our students are listed below.

Kashish Madan [B. Sc. (H) Zoo-II]	Recruited in "DU Beat" as designer & designed product labels and logo for ANDY.
Aurobindo Sengupta [B. Sc. (H) Zoo-II]	III position in Photography Competition at Ramjas College.
Deepti Nair [B.Com. (H)-II]	II prize in an Inter-College Debate Competition organized by RBI.
Priyanka Dasgupta, [B. Sc. (H) Zoo-I]	1st runner-up for Inter-College Debate Competition held at RBI.
Avinash Kumar Shudhanshu [B. Sc. PS - Elect-II] Gaurav Singh [B. Sc. (H) Comp Sc-II] Raj Kumar and Sadashiv Raj Bharadwaj [B. Sc. (H) Elect-I]	Best presentation at '7th National Level Science Symposium-2014' on "Recent Trends in Science and Technology" sponsored by 'Gujarat Council of Science and Technology' at Christ College, Rajkot on February 23, 2014.
Radhika Sharma and Parul Gulati [B.Com. (H)-III]	I prize in Eastern Zone of National Level Debate Competition organized by AIMA; October 1, 2013.
Raj Kumar and Shivam Sharma [B. Tech. Elect-II]	II and III position respectively in 'My Diary' Competition; Gandhi Bhawan, University of Delhi; October 15, 2013.
15 students [B. Sc. (H) BMS] and one student [B.Tech. CS]	Selected to attend the 6th Science Conclave at IIIT, Allahabad; December 8-14, 2013.

4.1.5 Student Aid

i) Student Aid for Knowledge, Success, Honour and Motivation (SAKSHAM)

The college has a benevolent scheme SAKSHAM (erstwhile known as Student Aid Fund) in place, with a sole objective to empower inclusive education for the needy and deserving students. It gets donations from teachers, non-teaching staff and some well-wishers. After a rigorous evaluation of the needs, selected students are supported in the following categories:

- 1 Full Fee Waiver (Except Security Deposit)
- 2 Rs. 800/- per month stipend for ten months (revised from Rs. 600/- paid last year)
- 3 Book Bank Aid
- 4 Stationery + Photostat up to Rs.3000/- for the whole academic year

All the students who have been recommended for SAF in any form are eligible to get book bank facility up to 05 books per semester. This year the following students were supported in one or more of the above categories:

Student Name	Course	Student Name	Course
Love Kush	B. Com (H)-II	Avdhesh Gangwar	B. Sc. (H) Phy-I
Ravi	B. Com (H)-II	Tejmani Kumar	B. Sc. (H) Phy-I
Meenakshi Bhaskar	B. Sc. (H) BMS-II	Deepak Kumar	B. Sc. (H) Phy-I
Nitin Kumar	B. Sc. (H) BMS-II	Amar Kujur	B. Sc. (H) Phy-I
Akshat Shrawat	B. Sc. (H) Bot-I	Mohd. Azam	B. Sc. (H) Phy-I
Shyam Lal Mandal	B. Sc. (H) Bot-II	Gaurav Kumar Dubey	B. Sc. (H) Phy-I
Putul Sen	B. Sc. (H) Bot-II	Vikram Singh	B. Sc. (H) Phy-III
Munesh Kumar	B. Sc. (H) Chem-I	Nandini Sahani	B. Sc. (H) Zoo-I
Vinod Kumar	B. Sc. (H) Chem-I	Kapil Dev	B. Sc. (H) Zoo-II
Kirti Sharma	B. Sc. (H) Chem-I	Jyoti Thakur	B. Sc. (H) Zoo-II
Dinesh Kumar	B. Sc. (H) Chem-I	Devendra Kant Maurya	B. Sc. (H) Maths-II
Poonam Gupta	B. Sc. (H) Comp Sc-II	Faizal Ali	B. Sc. (H) Maths-II
Monika Bansal	B. Sc. (H) Comp Sc-III	Abhishek Srivastava	B. SC. LS-III

Student Name	Course	Student Name	Course
Ekta Soni	B. Sc. (H) Comp Sc-II	Vicky	B. Sc. PS (CS)-III
Laxmi	B. Sc. (H) Comp Sc-II	Dharmpal	B. Sc. PS (E)-III
Amit Verma	B. Sc. (H) Elect-III	Kishan Haldar	B. Tech. Comp Sc-I
Sandeep Yadav	B. Sc. (H) Elect-III	Mohd. Anas	B. Tech. Comp Sc-I
Shivpal Singh Jadaun	B. Sc. (H) Maths-I	Kamlesh Kumar	B. Tech. Elect-I
Abhishek Kr. Verma	B. Sc. (H) Maths-I	Monika	B. Tech. Comp Sc-I
Dinesh Kumar	B. Sc. (H) Maths-I	Nagendra Singh	B. Tech. Elect-I
Ashish Gautam	B. Sc. (H) Maths-II	Abhishek Kumar	B. Tech. Elect-I

ii) Ms. Teena Gupta Memorial Scholarship

In this category, six scholarships each worth Rs. 6,000/- are awarded to needy cum deserving students of B. Sc. (H) Electronics and B. Sc. Physical Science (Computer Science). This year following students were awarded.

S. No.	Name	Course
1.	Monika	B.Tech. Comp Sc-I
2.	Kishan Haldar	B.Tech. Comp Sc-I
3.	Vicky Thakur	B.Sc. PS (Comp Sc)-III
4.	Rashmi	B.Tech. Elect-I
5.	Sparsh Bajpai	B.Sc. (H) Elect-II
6.	Sandeep Yadav	B.Sc. (H) Elect-III

Besides the above, under '**Earn-while-you-learn**' programme, students have continued to support themselves through this scheme within the College.

4.2 The Student Council

The student council elections were held on September 13, 2013.

Mr. Sneha Todi	Mayor	B. Sc. LS-III
Mr. Prabhav Pushkar	Deputy Mayor	B. Sc. (H) Elect-III
Mr. Sumit Mittal	Council Treasurer	B. Com. (H)-III
Mr. Ashwani Sangwan	Council Secretary	B. Com. (H)-III
Mr. Anil Kumar	Cultural Secretary	B. Sc. (H) Bot-II

Mr. Eshant Bhatia	Career Counselling and Placement	B. Sc. (H) BMS-II
Mr. Alok Tripathi	Sports	B. Sc. (H) Phy-I
Mr. Nitish Malhotra	Responsibilities and Grievances	B. Sc. (H) BMS-II
Ms. Neha Chandra	Women Issues	B. Sc. (H) Maths-II
Ms. Haripriya Sharma	College Complaints Committee*	B. Sc. (H) Bot-II
Mohd. Shahnawaz Saifi	College Complaints Committee*	B. Com. (H)-I

*CCC has been dissolved as per the latest University notification and has been replaced early this year by a different Committee against sexual harassment.

5. Achievements Of Faculty

Dr. Savithri Singh, Principal

Dr. Savithri Singh was invited as a member of the **Advisory Group** of an International Development Research Centre (IDRC), Canada, funded multi-location project – Research on Open Educational Resources for Development (ROER4D) that has started towards end of 2013. This project aims to provide evidence-based research from a number of countries in South America, Sub-Saharan Africa and Southeast Asia. The primary objective of the programme is to improve educational policy, practice, and research in developing countries by better understanding the use and impact of OER.

Earlier, 2012-2013, Dr. Singh was a member of the Planning Committee for this project wherein submissions were invited from various researchers of the Global south and screened. The selections were finalized at the Project Research Meeting [held along with the Open Course Ware Consortium (OCWC) Global Conference 2013] in Bali, Indonesia, May 8-10, 2013.

The first 'Meetings and Workshops' of (ROER4D) of Advisors along with the selected researchers was held in Cape Town, South Africa during December 9-13, 2013.

Dr. Singh as member of the Advisory Group will specifically interface with the following three projects of the ROER4D:

- Collaborative co-creation of OER by teacher educators and teachers in India: A participatory action research study.
- Co-creation of OER by teachers and teacher educators in Colombia.
- OER integration for course development in India and Malaysia.

With Dr. Singh's continued efforts to strengthen and enhance teaching-learning process through promotion and development of Open Educational Resources (OERs), Acharya Narendra Dev College was selected to become an Affiliate of the Creative Commons (CC) in India. The college entered an MoU with the CC in the month of May, 2013. This recognition was preceded by the visit of Jessica Coates, Affiliate Network Coordinator and Jane Hornibrook, Regional Project Coordinator - Asia Pacific to the College on February 20, 2013 to understand our commitment and involvement in open licensing. They appreciated the work done by the College on OERs and recommended that the college be recognised to represent CC in India.

At the time of the visit of the CC representatives, an open seminar on '**Understanding Creative Commons licenses for Content Creation**' was coordinated by ANDC along with Creative Commons and the Institute of Lifelong Learning at the North campus where more than 100 participants were exposed to the diverse Creative Commons Licenses, the legal aspect of the licenses and their use in content creation.

As an Affiliate Dr. Singh participated in the Creative Commons (CC) Global Summit 2013 as well as the Asia-Pacific Regional Meeting organized in Buenos Aires (Argentina) during August 20-24, 2013.

A one-day workshop on 'Open Science for Higher Education and Research' was organized during the visit of Dr. Puneet Kishore, Manager, Science and Data Policy, who is leading the 'Science Commons' in Creative Commons Head Office. This workshop was organized in association with Creative Commons and the Institute of Informatics and Communications, University of Delhi South Campus on October 3, 2013.

As an internationally renowned OER Expert, Dr. Savithri Singh, Principal was invited to the Regional Consultation Workshop on Developing Quality Guidelines for Open Educational Resources (OERs) in Maulana Azad National Urdu University, Hyderabad, March 13-15, 2013. Faculty in the college is working at beta-testing these quality parameters.

Besides the above, Dr. Savithri Singh also was involved in the following activities:

- Participation in a 'Consultation on tackling sexual crimes against women in higher education institutions' on invitation from the National University of Educational Planning and Administration (NUEPA), August 27, 2013.
- Participation in the panel discussion on creating awareness about national biodiversity in 'CMS Vavavaran 2014' at Delhi, January 31, 2013.
- Editing for the Biology Modules under the Certificate Programme for Teaching of Elementary School Science (CTES) of the NCERT, New Delhi.

Dr. Singh is member of numerous committees. Some significant committees are listed below:

- National Resource Group (NRG) on ICT in School Education constituted by the Ministry of Human Resource Development, Government of India.

- National Resource Group (NRG) for Rashtriya Madhyamik Shiksha Abhiyan (RMSA) constituted by the Ministry of Human Resource Development, Government of India.
- Member (UGC Representative), Governing Body, Government Science College, Raipur, Chhattisgarh (2007-08 to 2012-13).
- Mathematical Science-Courses Admission Committee of the University of Delhi from the calendar year 2013.
- Organizing Committee, Antardhvani 2014 – annual cultural festival, University of Delhi.

5.1 Contribution of Faculty to School/College Education:

Our teachers regularly contribute in the arena of school and general science education by authoring books and contributing chapters in the books.

1. Books Published

Title & Publisher	Author
Engineering Chemistry, Khanna Publishers	Dr. Pooja Bhagat
"Evaluation of fifteen local plant species as larvicidal agents against an Indian strain of dengue fever mosquito, <i>Aedes aegypti</i> L. (Diptera: Culicidae)" In e-book " <i>Global change and human vulnerability to vector-borne diseases</i> ", 2013, Eds., Rubén Bueno-Marí and Ricardo Jiménez-Peydró, Frontiers, Switzerland, pg: 48-53, DOI 10.3389/978-2-88919-156-7	Dr. Sarita Kumar
Student Manual and Teacher Manual in Chemistry for class XII by CBSE-i	Dr. Neeti Misra
Book Chapter: Genetic Engineering of Crop Plants for Abiotic Stress Tolerance. In: Parvaiz A and Rasool S, <i>Emerging Technologies and Management of Crop Stress Tolerance: Vol. 1 - Biological Techniques</i> , 2014, Elsevier Inc, San Diego, USA (In Print). ISBN: 978-0-12-800876-8	Dr. Bhawna Madan

Contd.

2. E-Chapters Uploaded At University Of Delhi Website:

Dr. Sarita Kumar (Zoology Sem-I and Sem-II):

- General characteristics and classification of Phylum Nematelminthes
- Life cycle, pathogenicity and prophylaxis of *Ascaris lumbricoides*
- Life cycle, pathogenicity and prophylaxis of *Wuchereria bancrofti*
- Parasitic adaptations in Nematoda
- General characteristics and classification of Phylum Cnidaria
- Morphology and Physiology of *Obelia*
- Coral Reefs
- Social life in insects

Dr. Charu K. Gupta: (Botany Sem-I): Rhodophyceae

Dr. Subhash Kumar: (Physics Sem-I): Dirac delta function

Dr. Roopesh Tehri: (Mathematics Sem-I): Principle of mathematical induction and well ordering principle

Mr. Gurudutt Rao Ambedkar (Mathematics Sem-I):

- Set and Functions
- Systems of linear equations

3. Enriching School Education

Workshop on 'Developing reference material for Biology for school teachers' held at NCERT, New Delhi	Dr. Sarita Kumar, Dr. Urmi Bajpai	November 26-29, 2013
Workshop on 'Developing a training module for class XII Biology' at NCERT, New Delhi	Dr. Poonam A. Kant, Dr. Gagan Dhawan	January 13- 17, 2014
Workshops on the 'Editing of Hindi version of modules in Science for lateral entry at Upper Primary Stage' at NCERT, New Delhi	Dr. Sarita Kumar	January 13-17, 2014 February 17- 21, 2014
Workshop on 'Development of Training package in Biology for Higher Secondary Stage', held at NCERT, New Delhi	Dr. Pooja Bhagat	February 24- 27, 2014

Workshop on 'Development of Training package in Biology for Higher Secondary Stage', held at NCERT, New Delhi	Dr. Sarita Kumar	March 10-13, 2014
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5.2 Conferences, Workshops, Training Programmes Organized:

Details	Organizers
FOSS and LINUX workshop (August 6-7, 2013)	FOSS Club, ANDC
Workshop on ethical hacking (September 2-5, 2013)	FOSS Club, ANDC
One day workshop on 'Open Science for Higher Education and Research' at UDSC, New Delhi. (October 3, 2013)	ANDC, Creative Commons and IIC
Workshop on Innovative pedagogies for Modern Optics and Photonics, organized by University of Delhi at ANDC SPIE Student Chapter (October 10-11, 2013)	Dr. Amit Garg
Re-launch of 'Creative Commons India' at India Islamic Centre, Lodhi Road, New Delhi (November 12, 2013)	Dr. Savithri Singh
CamTel Workshop for teachers (November 21-23, 2013)	Dr. Savithri Singh Mr. V Krishnamoorthy
One day workshop on 'Collaborative Undergraduate Biology Education; CUBE - 2014', held at ANDC (February 7, 2014)	Dr. Sarita Kumar Dr. Ravi Toteja

5.3 Awards /Honours

Awardee Name	Name of the award/ honour	Awarded/ honoured by	Awarded on
Dr. Amit Garg	Meritorious Teacher Award and Rs.1,00,000/- as cash prize	Directorate of Higher Education, Govt. of NCT of Delhi	May, 2013
Dr. Sandeep Goel	Best Paper Presentation Award at 36th All India Accounting Conference and International Seminar on Accounting Education & Research	Andhra University & Indian Accounting Association, Visakhapatnam	January 11-12, 2014

5.4 Other Achievements

Visiting Scientist at School of Chemistry, University of Edinburgh, UK.	Dr. Gagan Dhawan	June, 2013
Invited to participate, as PI of the ongoing OSDD project in the college, in the meeting "Challenges in TB therapy" organized by IISc, Bangalore and OSDD, CSIR	Dr. Urmi Bajpai	July 18-20, 2013
Jury member for 3rd National Level Exhibition and Project Competition (NLEPC)- 2013 under Innovation in Science Pursuit for Inspired Research (INSPIRE) programme, Department of Science and Technology	Dr. Amit Garg, Dr. Gagan Dhawan, Dr. Ravi Toteja, Dr. Ravneet Kaur, Dr. Anju Agrawal, Dr. Pankaj Khanna, Dr. Udaibir Singh, Mr. Ravinder K Sagar	October 8-10, 2013
Visiting faculty for teaching post-graduate DNB students (equivalent to MD) at Skin Institute and School of Dermatology (SISD), Delhi.	Dr. Gagan Dhawan	Session 2013-14
Visiting faculty for teaching Drug Discovery and Development to B.E (Biotechnology) students at Division of Biotechnology, Netaji Subhas Institute of Technology, University of Delhi.	Dr. Gagan Dhawan	Session 2013-14
Appointed as Member, National Network for Mathematical and Computational Biology (NNMCB) funded by Science and Engineering Research Board, Government of India.	Dr. Gagan Dhawan	2014
Selected as a Vice Chancellor's fellow	Dr. Pankaj Khanna	2014
Coordinators for TATA CSIR-OSDD Fellowship (TCOF) and TATA CSIR-OSDD Fellowship for Women (TCOFW) for research on neglected diseases	Dr. Urmi Bajpai	-
Associate Editor of International Research Journal of Microbiology	Dr. Sarita Kumar	-

Editorial Board member of Journal of Applied and Natural Sciences; and Asia Pacific Journal of Tropical Biomedicine	Dr. Sarita Kumar	-
Executive Committee Member, Indian Accounting Association.	Dr. Sandeep Kumar Goel	-

5.5 Faculty Awarded Ph.D. Degree (2013-14)

Name	Title & Date of award
Dr. Chandra Kant Samal	"Broadcast Scheduling in Multi-Hop MANETS" (May 10, 2013).
Dr. Sadanand Prasad	"ON Evolutionary Behaviour and Chaos Measure in Discrete Dynamical Systems" (May 16, 2013)
Dr. Sunita Narang	"Financial Derivatives: Implications for the Indian Capital Market". (September 17, 2013)

5.6 Faculty on Study Leave for Doctoral Research (Ph.D.)

Name	Department
Ms. Harita Mehta	Department of Computer Science (DU) <i>Joined on February 14, 2014</i>
Ms. Surinder Kaur	Faculty of Management Studies (DU)
Ms. Preeti Marwaha	Department of Computer Science (DU) <i>Joined on November 4, 2013</i>
Ms. Sunita Jetly	B.R. Ambedkar Centre for Biomedical Research
Ms. Shalu Mahajan	Faculty of Management Studies (DU)
Mr. Yasheshwar	Jamia Hamdard University

5.7 Faculty on Deputation/Lien (EOL)

S. No.	Name	Centre/University
1.	Dr. Mamta Bhatia	Campus of Open Learning, DU
2.	Dr. Pankaj Tyagi	Cluster Innovation Centre, DU
3.	Mr. Chaman Singh	Institute of Life Long Learning, DU
4.	Dr. Pankaj Khanna	Vice-Chancellor Fellowship Programme, DU

5.8 Promotions of Staff Members (2013-14)

Teaching Staff

S.No.	Name	From	As
1	Dr. Priti Goyal	16.04.2013	Associate Professor
2	Dr. Geetika Kalra	18.06.2013	Associate Professor

5.9 Retirement of Staff Members (2013-14)

S. No.	Name	Date of Retirement
1.	Ms. Shruti Dhingra (Professional Assistant)	August 31, 2013
2.	Ms. Veena Saini (Librarian)	September 30, 2013

5.10 Orientation Programme/Refresher Courses

Dr. Chandra Kant Samal	Orientation Programme	July 15 – August 14, 2013
Dr. Preeti Marwah	Refresher Course	December 16, 2013 - January 5, 2014

5.11 Achievements Of Non-Teaching Staff

Our non-teaching staff is also very competitive and always tries to hone on their skills. Mr. Harendra Kumar, Library Attendant has completed his Graduation from University of Delhi.

The following staff attended training programmes in 2013-14:

Name	Designation	Period	Organised/conducted
Ms. Reetu Mangla	Junior Assistant (Administration)	June 17-21, 2013	Directorate of Training, Union Territories Civil Services, Govt. of NCT of Delhi.
Mr. Vinod Kumar	Library Attendant	November 18 - 29, 2013	Delhi University Central Library, University of Delhi.

In addition, the College conducted a 4-day computer training program for laboratory, library and subordinate staff from December 16 - 19, 2013. The training was attended by 35 staff members.

6. College Activities

6.1 Staff Council Committees

6.1.1 Dramatics Society 'Dhwani'

- Street play-“Bhagwan Na Kare” was organized in West Delhi – near Fun Cinema (Moti Nagar) and bus stand (Karam Pura) to promote consciousness against tobacco use on 'World No Tobacco Day' (May 31, 2013).
- Various mime acts were performed on Open Day of College to showcase the College to prospective students.
- Theatre week was celebrated to promote theatre culture among students (July 2013).
- The heroic ballet “Jhansi Ki Rani” was staged in the Mood Indigo festival organised by the IIT Mumbai (December 20-22, 2013).
- The fourth Annual Theatre Production “Spartacus- The Broken Shadows” was staged at the Shri Ram Centre, New Delhi (February 5-6, 2014). The play, adapted from a novel originally written by Howard Fast, espouses values of freedom and hope. It envisages the fore saga of Spartacus - a slave who stood up against the tyranny of the Caesar, and his mighty Roman empire. Mr. Pervaiz Alam, Dean, Journalism and Mass Communication, Apeejay Stya University was chief guest on February 5, 2014. On February 6, 2014, we had the honor of having Mr. Rajesh Tailang, Writer, Actor, Director and Visiting Faculty to the NSD. The main attraction this year was live music played by Puneet Saluja and his band. The show got a wide coverage by electronic media (DD News and Total TV) and print media (Delhi Times, PTI, Asian Age, Navbharat Times, Navodhya Times, Mail Today and many more).

6.1.2 National Social Service (NSS)

The NSS unit of the college is one of the most important pillars of its social outreach programme. This year the society had as many as six hundred enrolments. Major activities of NSS involved:

- “Free Health Check-up Camp”, in association with Cipla and Janki Healthcare Centre, was organized for the students, staff, teachers and the nearby residents (September 12, 2013).
- A self-defense training session for the girl students was organized in association with Delhi Police (September 12, 2013).
- A cleanliness drive with Eco-Club was organized on the NSS day (September 24, 2013).
- The Diwali Mela “SAHYOG” was organized to support various NGOs working for differently abled people. They sold self-made products such as candles, decorative materials, handmade products, diyas and various stationery items (October 25, 2013).
- Blood donation camp was organized on October 25, 2013.
- An awareness talk was delivered on HIV/AIDS by Delhi AIDS Control Society (January 6, 2014).
- Mock drills were conducted with the help of District Disaster Management Authority.
- Training on disaster management and quiz competition on the same (January 9, 2014)

6.1.3 Annual Events Committee

The Annual Events Committee is responsible for all activities that are held at the college level throughout the year.

- “Open Day” was organized on to impart admission related information to the admission seekers. Information regarding FYUP was imparted to the students (June 14, 2013).
- Orientation Day was organized to welcome new batch of students. They were informed about various societies in the college, rules regarding attendance, internal assessment, library facilities and other disciplinary do’s and don’ts (July 18-19, 2013).
- The “Annual Day” of the College was held on April 5, 2013. Prof. S.K. Sopory, Vice Chancellor Jawaharlal Nehru University graced the occasion as the chief guest.

- The annual cultural festival - “Accenture” was held on February 20-21, 2014. Prof. R.C. Kuhad, Chairperson of the Governing Body, inaugurated the festival. Various events like folk dance, pot painting, debate, singing, nukkad naatak, haasya kavi samelan, treasure hunt, fashion show, creative writing and dance competitions - were organized during the festival. A rock band, “Roots”, performed one evening and the event came to close with DJ session performed by DJ Sunny Grover.

6.1.4 Sashakt – The Society for Women Empowerment

Sashakt, the society for welfare of girl students of college, works towards gender sensitization and empowerment of women.

- Posters were displayed on ‘Date Rape Drugs’, Women helpline started by GNCT of Delhi and PoliceHEART in the college to spread awareness.
- A 'Medical Counseling' camp was organized with an NGO, Young Concepts, for the girl students and female staff of the College (September 23, 2013). A team of doctors, from ‘Fortis Escorts Heart Institute and Research Centre’, led by Dr. Manisha Kukreja Bhatla, consultant in preventive health programmers at Fortis Escorts Heart Institute discussed health-related issues with the students.
- Poster making competition was held on the topics – ‘Where the Mind is without Fear’ and ‘New Horizons of Womanhood’ (September, 2013).
- On the spot small skits/Nukkad Natak and poem recitation on women issues – women empowerment, molestation and acid attack, and gender inequality at home, were organized. Short films, related to issues like female foeticide, dowry and sexual harassment were also screened for the students and staff of the college (October 7, 2013).
- A Rangoli competition on the topic “Women in Society” was held to celebrate Women’s day (March 8, 2014).

6.1.5 Eco-Club (Paritantra)

Organized college cleanliness programme, along with NSS (September 24, 2013).

6.1.6 Sports Committee

The college participated in six sports; Football (Men), Cricket (Men), Volleyball (Men

and women), Athletics (Men and women), Table Tennis (Men) and Badminton (Men and women); at various tournaments. Women's volleyball team of the college bagged runners-up position in a tournament organized by IIT Delhi.

The Annual sports day (February 12, 2014) was graced by Mr. Davenedra Jhahharia, Padma Shri, Arjuna Awardee, Paralympics Gold Medalist 2004 Athens, World Championship Gold Medalist and a World record holder as the chief guest. The events were sponsored by Adidas and Bajaj Sports.

6.1.7 SPICMACAY

SPICMACAY (Society for Promotion of Classical Music and Culture Amongst Youth)- Acharya Narendra Dev College chapter organized a Hindustani music concert of the duo Pandit Ritesh and Rajnish Mishra under the Virasat series-2013 on October 21, 2013. They were accompanied by Ustad Zakir Dhaulpuri (Harmonium) and Pdt. Shubb Maharaj (Tabla). The artists gave a mesmerizing performance wherein they rendered various classical ragas. The artists for the first time in the history of SPICMACAY concerts in ANDC, made the audience sing with them.

6.2 Departmental Activities

At ANDC each department has its own student society. These societies are composed of students and run and maintained by students. The students get an experience to work in an organizational structure and get a chance to show their organizational and leadership skills.

6.2.1 Department of Biomedical Sciences

The departmental society "CATHEXIS" organized its annual festival on February 24, 2014. Theme for this year's festival was "Drug Resistance: An Escalating Threat". Dr. Mandira Varma from VPCI (University of Delhi) delivered a talk highlighting the problem of drug resistance in *Mycobacterium tuberculosis*. She informed the audience about latest techniques in diagnosis and treatment of drug resistant tuberculosis. Mr. Stuart Easter from University of Edinburgh also addressed the students. He informed students about various programmes at University of Edinburgh and scholarships available to them for higher studies there. The students organized events like paper presentation, poster making competition, ad-mad and quiz. The festival was attended by students and faculty from various colleges of University of Delhi.

6.2.2 Department of Botany

“TARUMITRA” the botanical society held its function on September 25, 2013. Dr. Sandeep Das from the Department of Botany, University of Delhi delivered a talk on “Mapping the Genomic Landscape with Bioinformatics”.

6.2.3 Department of Chemistry

The Chemistry Society ‘ABHIKRIYA’, celebrated its festival ‘Synergia 2014’ on March 10, 2014. Professor Rita Kakkar delivered a talk on “Chemistry Our Life Our Future”.

6.2.4 Department of Commerce

Department organized interactive, group discussions and mock interview sessions with students during October 7-13, 2013 to develop their commercial skills and enable them face the interview board with confidence. The faculty arranged numerous talks by faculty members on topics of commercial relevance, such as functioning of stock market, investor protection recent, corporate scams and case studies related to mercantile law and accountancy. On January 17, 2014, seven students attended a National Seminar on “Banking in Digital Era and Careers in Banking” at the Sathya Sai International Center, Lodhi Road.

6.2.5 Department of Computer Science

‘TURING’– the Society of Department of Computer Science organized its inaugural function on October 9, 2013. A technical talk on “Information Security” was delivered by Mr. Sheikh Faraz Osmany, Deputy Director – IT, Petroleum Planning and Analysis Cell, Ministry of Petroleum and Natural Gas. It helped the students to understand the security aspects of Network, Applications and Databases. A technical quiz and tech discussion on future IT technologies were organized on October 10, 2013.

The FOSS Club of the Department organized a 4-day (12-hour) workshop on **Ethical Hacking**, September 2-4, 2013 as also a two-day workshop on **FOSS & Linux** for students, August 6-7, 2013.

6.2.6 Department of Electronics

The Electronic Society - ELECTRONICA organized a talk on “Internet of things” by Mr. Himanshu Gandhi, Sr. Tech Lead, Aricent Technologies on October 31, 2013. The Department also organized its Alumni Meet on October 31, 2013. It provided an opportunity for current students to interact with and learn from their seniors; and for

alumni to meet their friends and faculty and to relive the moments they had enjoyed during their stay in the College.

6.2.7 Department of Mathematics

The department organized its annual festival on March 21, 2014. Dr. Aparna Mehra from IIT Delhi was the chief guest. She delivered a talk on '*Time Value of Money*'.

6.2.8 Department of Zoology

The Zoological Society "NICHE" organized a talk on "Advances in Science and Technology" by Dr. Sher Ali, (Scientist VII) from National Institute of immunology, on September 6, 2013. He talked about the advances in technology that have helped in detecting genetic disorders by citing examples from his research on detection of extra X chromosome by using various scientific tools and techniques. Department's annual fest was organized on March 3, 2014. Professor Allan Warren, President of Life Science Department and Microbial Biodiversity Division, Natural History Museum, London delivered a talk on "The Three Domains of Life", where he explained the new three domain classification of organisms based on phylogenetic tree 16s rRNA gene. The talk was followed by various activities; Rangoli, Paper Presentation, Science Quiz Competition, Ad-Mad and X-Factors.

6.3 Establishment of Embedded System and Robotics Laboratory

Recognizing the importance of Embedded System and Robotics education for its students, College set-up the Embedded Systems and Robotics Laboratory under the e-Yantra Lab Setup Initiative (eLSI) of IIT, Bombay as part of the e-Yantra Project funded by MHRD, Government of India. The laboratory is well equipped with fifteen robots and other accessories that include different types of sensors, servo motors, digital accelerometers, magnetometers, wireless camera, GPS interfacing as well as Zigbee modules for wireless communication. The faculty members involved in this project are; Dr. Amit Garg, Dr. Arijit Chowdhuri, Dr. Sunita Narang and Mr. Vishal Dhingra.

The objectives of this initiative are to:

- a) impart theoretical and programming knowledge to teachers through workshops.
- b) provide hands-on training to teachers through regional e-Yantra Robotics Teacher Competition.

- c) nurture the colleges to set up their own Robotics labs where students can do real time projects on embedded systems and robotics.

Besides this the students can do various hands-on projects so as to earn expertise in this state-of-art technology. Further, this facility will assist the teaching in three courses of FYUP:

- I. B. Tech. (Electronics), Applied Course; paper EL-AC-I-4 Embedded Systems & Robotics
- II. B. Sc. (H) Physics Applied Course; paper PHY-AC-III A: Embedded System: Introduction to Microcontrollers
- III. B. Tech. (Computer Science) Applied Course; Paper CSAC-601: Embedded Systems

6.4 EXPLORE

One of the unique programmes initiated for second year students in college – EXPLORE (Excursions for Peer Learning in an Open and Rejuvenating Environment) – has its roots in the belief that education doesn't end within the four corners of a classroom. Funded solely by the College, it allows students to undertake excursions, educational tours or field trips. The following trips were organized under the scheme this year:

Department	Venue & Dates
Biomedical Science	Chail Wildlife Sanctuary / September 28-October 1, 2013
Botany	National Botanical Research Institute, Lucknow/ October 2013
Chemistry & Life Sciences	Kullu-Manali, H.P./ October 17-21, 2013
Commerce	Jaipur/ October 17-20, 2013
Electronics	Amritsar/ December 6-7, 2013
Mathematics/Zoology/ Computer Science/ Physical science (Chemistry)	Kullu-Manali, H.P./ March 22-25, 2013
Physics	Amritsar/ March 5-6, 2014

7. Innovation & Entrepreneurship Development Centre (IEDC)

To encourage students to explore the possibility of becoming job-creators instead of job seekers, the college has established an **“Innovation and Entrepreneurship Development Centre”** (IEDC) in 2010 under the auspices of National Science and Technology Entrepreneurship Development Board (NSTEDB) of the Department of Science & Technology (DST), Govt. of India. IEDC has twin initiatives of training – (a) Entrepreneurship Awareness Camps (EACs), Entrepreneurship Development Programmes (EDPs) and Faculty Development Programmes (FDPs) and (b) Innovation (Students’ projects). Over the years IEDC has organized three EDPs and 13 EACs. The 13th EAC was organized on January 29 - 30, 2014.

Under IEDC, the College also established an **Entrepreneurship Laboratory (EL)** in 2013. EL seeks to foster an entrepreneurial mindset amongst students and provides a conducive environment that promotes their innovations, initiatives and commitment. The students are encouraged to bring their innovative ideas to life. It empowers potential entrepreneurs by converting their ideas into products and creating jobs for others.

Furthering the cause of EL, the students of the college have established an in-campus company, called ANDY that depicts the spirit of AND Youth. Even rudimentary exposure under EL has empowered the undergraduate students to shoulder responsibilities regarding management of ANDY’s day-to-day affairs including administrative, marketing and financial. The yeoman efforts put in by motivated students has resulted in the development of cost-effective and eco-friendly (herbal) products including soaps, shampoos, hand-wash and sanitizers in the first instance. ANDY is one of the nascent initiatives and the first in any undergraduate college SPIC University of Delhi. It is a technology demonstrator whose main idea is not to earn profit but empower students with enough confidence for a start-up. The company is planning the launch of Campus merchandize soon.

The excellence of the IEDC led the Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India to recognize ANDC, the only college in University of Delhi for the award of prestigious Business Incubator – to support commercialization of innovative ideas. The BI will support ten innovative ideas towards maturing into successful business enterprises.

8. Add-on Courses

We all are not equal and our needs are also not the same. Some students need extra while there are some who need some charging to know their potential and there are some students who are good at concepts but are unable to express themselves. Keeping all these things in mind and also limited time and defined syllabi, our college has designed add-on courses for willing students. The college organized following add-on courses in the last year.

8.1 Effective Communication And Personality Development through Theatre (ECPDT)

Course coordinator: Dr. Sandeep Kumar Goel

Like every year a 100-hour short-term add-on course on 'Effective Communication and Personality Development through Theatre' (ECPDT) has been successfully conducted in the college. The course had several people associated with National School of Drama (NSD) as Resource Persons. Mr. Ajay Manchanda, an eminent theatre personality has designed the course. Various other well-known theatre personalities were invited as guest faculty to train students.

The course culminated with a function wherein students showcase the enhancement of talents and skills in them through the course among their parents, fellow students, college staff, and academicians from university of Delhi. The culmination programme of the course was held on October 15, 2013 with the honourable chairman of college Mr. B.P. Singh as the Chief Guest and Ms. Priya Singh, Governing Body member as the Guest of Honour.

8.2 Foreign Language Courses

Course coordinator: Dr. Vandana Uberoi

The Foreign Language Centre of Acharya Narendra Dev College was started nine years back. It runs part-time Certificate, Diploma and Advanced Diploma courses in French, German, Russian and Spanish, which are recognized by the University of Delhi and are self-financed. Classes are generally scheduled in the late afternoons to suit working students.

Our college is one of the most sought after Foreign Language Centre and the University sends their best teachers to us owing to the fact that both students and teachers get good infrastructure and discipline to conduct regularity in the classes. Our centre can boast to have toppers at both South Campus and University Campus almost in each academic year.

8.3 Certificate Course in Bioinformatics and *in silico* Drug Discovery

Course Coordinator: Dr. Gagan Dhawan

The Department of Biomedical Science of Acharya Narendra Dev College along with Bhaskaracharya College of Applied Science, University of Delhi, offered a 128 hours long add-on course in **Bioinformatics and in-silico Drug Discovery** for undergraduate and postgraduate students.

The course structure is formulated in consultation with the members of the course advisory committee consisting of eminent scientists from academia as well as industry. After successful completion of first batch, the second batch of the course commenced from July 2013. Seeing an overwhelming response from the students, in the second batch admission was opened for students from outside host colleges with number of seats increased to 50. The course included both lectures and hands-on sessions on biological databases, sequence and microarray analyses, phylogenetic analysis, importance of Bayesian statistics, molecular modeling and protein-drug docking.

9. Committee against Sexual Harassment

The College has constituted a 'Committee against Sexual Harassment' comprising of Dr. Vatsla Kohli, Dr. Subhash Kumar, Ms. Kanika Chadha, Dr. Vibha Maurya (External Member) and Mr. Nakul Singh Sawhney (External Member). This Committee has replaced the existing College Complaints Committee (CCC).

10. College Development

To achieve and progress we need a proper environment and facilities. The space limitations should not hamper our growth so we continuously keep adding to our infrastructure with funding from Govt. of NCT Delhi and UGC.

10.1 Infrastructure

- The construction of new office block was completed where the offices of Vice-principal, Bursar, Administrative officer and Section Officer (Accounts) were shifted.
- The college received 590 HP laptops for FYUP students, 18 Lenovo laptops for PwD students of FYUP courses and 11 HP laptops for faculty teaching Foundation courses to FYUP students.
- The College Library 1583 books and five magazines to its depository. The annual book exhibition was organized in August 2013 and had an overwhelming response from vendors, students and staff.

10.2 Financial Grants Received

No growth can take place anywhere without sufficient funds and the college wishes to extend heartiest thanks to all the funding bodies for releasing grants as per the following:

S.No.	Granting Authority	Type/Purpose of Grant	Date	Amount (Rs.)
1.	Directorate of Higher Education	Non-recurring	March 2013 onwards	85,00,000/-
2.	Directorate of Higher Education	Rain Protection shade to main building, to semi -permanent structure and canteen	April 2013 onwards	18,82,800/-

S.No.	Granting Authority	Type/Purpose of Grant	Date	Amount (Rs.)
3.	Directorate of Higher Education	Construction of SPS type three rooms for Xeroxing, Stationery Shop and ATM facility	April 2013 onwards	7,02,091/-
4.	Directorate of Higher Education	Replacement of existing false ceiling with Armstrong false ceiling in classrooms	April 2013 Onwards	27,06,500/-
5.	UGC	Merged Scheme	XII Plan	Rs. 21,59,600/-
6.	DU	Grant by Vice Chancellor	July 2013	Rs. 500,000/-
7.	DU	Best practices award- Antardhvani 2014	February 2014	Rs. 500,000/-

Finally...

Like last year, even though we have so many positives to be reported and be proud of, we are still awaiting, now impatiently, for allocation of land and funds for a new college building. The number of students has been increasing over time. In 2006 we started with just about 1000 students and by 2016 the number is expected to reach 2500. In two years we will be celebrating the silver jubilee of the College's existence and all through this time we have always faced a space crunch. It is indeed a sad commentary on the Delhi Government and DDA that they have been unable to allocate a suitable plot for developing the College.

Despite this acute shortage of space we are the only college to so strongly support research, Ph.D. students, UG students' research and provide other not-to-be-matched facilities – all these also cause a strain on the space resources. We have been trying hard to convince the authorities to identify a suitable site for us – I seek the help of the august guest and the Chairman, Governing Body to help us in our endeavor. We do need a bigger space and better built-up area – we are tired of making do with a school building! It restrains us from developing the way we can and want!

I take this platform to also express my sincere gratitude to persons/organizations that have proved a great support system for me and the College - I would like to state that the College is progressing the way it is due to the full-hearted support of all the

authorities – the Vice Chancellor and his team, the Chairman and members of the Governing Body, the Department of Higher Education, Government of NCT of Delhi.

It would be amiss if I do not also thank all my colleagues – the hard-working and sincere faculty, and the non-teaching staff, for their untiring efforts towards taking the college forward. While students are key to any educational institution, I feel there is further scope for improvement in their utilization of the facilities, ambience, culture in the college! Not many educational institutions provide such excellent infrastructure and nowhere do you have so many people who care – please do take advantage of this unique opportunity and make the best of your three years in college!

Dr. Savithri Singh

March 27, 2014

Principal

Annexure

Research Publications- Faculty And Students

- **Bhawna Madan**, Garima Chaudhary, Steve Cramer and Wilfred Chen (2013) ELP-z and ELP-zz Capturing Scaffolds for the Purification of Immunoglobulins by Affinity Precipitation. *Journal of Biotechnology*, **163**:10-16.
- Davinder Siwal, **Vinita Suyal**, Awadhesh Prasad, Samit Kumar Mandal and Raghuvir Singh (2013) A new approach of denoising the regular and chaotic signals using empirical mode decomposition: comparison and application. *Review of Scientific Instruments*, **84**: 075117.
- Deepika Khandelwal, **Sunita Hooda**, Ajaib Singh Brar and Ravi Shankar (2013) Stereoregularity evolution of isobornyl acrylate and styrene copolymers by 2D NMR spectroscopy. *Journal of Molecular Structure*, **1049**: 99-111.
- Eniyan Kanandasamy and **Urmi Bajpai** (2013) Cloning, expression, purification and bioinformatics analysis of 2-methylcitrate synthase from *Mycobacterium tuberculosis*. *Asian Pacific Journal of Tropical Medicine*, 412-420.
- L. M. Saha, **Sadanand Prasad** and R. K. Mohanty (2013) Dynamic behavior of generalized invertible h  non map. *Int. J. of Appl. Math and Mech.* **9** (18): 28-37.
- Leena Khanna, **Pankaj Khanna**, Chandramukhi S Panda and Siva S Panda (2013) Synthesis of various S-S linked symmetric bisazaheterocycles: A review. *Mini-reviews in Organic Chemistry*, **10**: 268-280.
- Manoj Kumar, **Rohtash Singh** and Updesh Verma (2013) Bremsstrahlung soft X-ray emission from clusters heated by a Gaussian laser beam. *Laser and Particle Beams*, doi: 10.1017/S0263034613000645.
- Meghna Singh, et al. (2014) The Zebrafish GenomeWiki: a crowdsourcing approach to connect the long tail for zebrafish gene annotation. Database **2014** doi: 10.1093/database/bau011. [Four students of B.Sc. (Hons) Biomedical Science are co-authors this paper: **Vivek Bhardwaj, Arijit Bhaumik, Bharat Bhatt, Aamod Jha and Aalok Kumar**].

- Mukesh Chandra Joshi, Krishan Kumar and **Vikrant Kumar** (2014) Potent phosphatidylinositol 3-kinase inhibitors and their biology. *Current Drug Discovery Tech.* **11**, 1- (DOI 10.2174/1570163810666131229130207).
- **Neetu Chaudhary** and Paramjit Khurana (2013) Cloning, functional characterization and transgenic manipulation of vitamin E biosynthesis genes of wheat. *Functional Plant Biology*, doi.org/10.107/FP12265.
- Nisha Rathor, **Amita Chandolia**, Neeraj Kumar Saini, Rajesh Sinha, Rakesh Pathak, Kushal Garima, **Satendra Singh**, Mandira Varma-Basil and Mridula Bose (2013) An insight into the regulation of mce4 operon of *Mycobacterium tuberculosis*. *Tuberculosis*, **93**: 389-397.
- Ponnusamy Baskaran, **Satendra Singh** and Johannes Van Staden (2013) *In vitro* propagation, *proscillaridin A* production and antibacterial activity in *Drimys robusta*. *Plant Cell Tissue and Organ Culture*, **114**: 259-267.
- Qing Sun, **Bhawna Madan**, Shen-Long Tsai, Matt DeLisa and Wilfred Chen. (2013) Creation of artificial cellulosomes on DNA scaffolds by zinc finger protein-guided assembly for efficient cellulose hydrolysis. *Chemical Communications*, DOI: 10.1039/C3CC47215A.
- Radhika Warikoo and **Sarita Kumar** (2013) Impact of *Argemone mexicana* extracts on Cidal, Morphological and Behavioural Responses of Dengue vector *Aedes aegypti* L. (Diptera: Culicidae). *Parasitology Research*, **112**: 3477-3484.
- Rahul D Sheth, **Bhawna Madan**, Wilfred Chen and Steven M Cramer (2013) High throughput screening for the development of a monoclonal antibody affinity precipitation step using ELP-Z stimuli responsive biopolymers. *Biotechnology and Bioengineering*, DOI 10.1002/bit.24945.
- Renu Solanki, Payal Das and **Monisha Khanna** (2013) Metabolic profiling of Actinomycetes having antimicrobial properties. *International Journal of Advanced Biotechnology and Research*, **4**: 444-459.
- **Rohtash Singh** and VK Tripathi (2013) Parametric coupling of lower hybrid wave with gyrating ion beam driven ion cyclotron instability in a plasma. *Physics of Plasmas*, **20**: 072112-7.

- Ruchika Malhotra and **Megha Khanna** (2013) Inter project validation for change proneness prediction using object oriented metrics. *Software Engineering*, **3**: 21-31.
- Ruchika Malhotra and **Megha Khanna** (2013) Investigation of relationship between object oriented metrics and change proneness. *International Journal of Machine Learning and Cybernetics*, **4**: 273-286
- **Sukanta Deb** and Harinder P Singh (2013) Chemical and structural analysis of the large magellanic cloud using the fundamental mode RR lyrae stars. *Monthly Notices of the Royal Astronomical Society*.
- **Sunita Narang** and Madhu Vij (2013) Long-term effects of expiration of derivatives on Indian spot volatility. *ISRN Economics*, 1-6.
- **V Bhasker Raj**, Harpreet Singh, AT Nimal, Monika Tomar, MU Sharma and Vinay Gupta (2013) Effect of metal oxide sensing layers on the distinct detection of ammonia using surface acoustic wave (SAW) sensors. *Sensors and Actuators B*, **187**: 563-573.
- **V Bhasker Raj**, Harpreet Singh, AT Nimal, MU Sharma and Vinay Gupta (2013) Oxide thin films (ZnO, TeO₂, SnO₂, and TiO₂) based surface acoustic wave (SAW) E-nose for the detection of chemical warfare agents. *Sensors and Actuators B*, **178**: 636-647.
- **Vinita Suyal**, Awadhesh Prasad and Harinder P Singh (2013) Visibility Graph Analysis of Solar Wind. *Solar Physics*, **289**: 379-389.

Presentations in Conferences by Faculty & Students

- Davinder Siwal, **Vinita Suyal**, Awadhesh Prasad, Samit Kumar Mandal and Raghuvir Singh (2013) Development of EMD based signal improvement technique and its application to pulse shape analysis. *AIP Conference Proceedings*, **1524**: 271-274.
- Jeeva Susan Abraham, S Sripoorna, **Ravi Toteja**, Renu Gupta, **Seema Makhija** (2013) Bio-Monitoring heavy metal pollution in fresh water bodies by single celled eukaryotic microorganisms. *54th Annual Conference*, AMI, MDU, Rohtak, November, 17-20, 2013

- Madhu Vij and **Sunita Narang** (2013) Long-term impact of derivative trading on volatility of Indian capital market with special emphasis on crisis period. International Conference on “*World Congress on Business, Finance, Marketing and Industrial Management for Sustainable Development*”, JNU, May 25-26, 2013.
- **Monisha Khanna**, Renu Solanki and Payal Das (2013) Structure elucidation of antimicrobial compounds from *Actinomycetes*. *54th Annual Conference*, AMI, MDU, Rohtak, November, 17-20, 2013.
- Naim Wahab, Radhika Warikoo, Monika Mishra and **Sarita Kumar** (2013) Larvicidal efficacy of natural extracts prepared from *Chrysanthemum* flowers against Indian strains of *Anopheles stephensi* Liston, *Culex quinquefasciatus* Say and *Aedes aegypti* L. *XII International Conference on Vector and Vector Borne diseases*, Udaipur, September, 16-18, 2013.
- Payal Das, Renu Solanki and **Monisha Khanna** (2013) Extracellular enzymes from soil *Actinomycetes*. *54th Annual Conference*, AMI, MDU, Rohtak, November, 17-20, 2013.
- Radhika Warikoo and **Sarita Kumar** (2013) Potential of *Argemone mexicana* extracts to manage Indian strain of *Aedes aegypti*: A novel approach for vector control. *XII International Conference on Vector and Vector Borne diseases*, Udaipur, September, 16-18, 2013.
- Rambir, Sachin Kumar, Amita, **Pankaj Khanna**, **Amit Garg**, **Vishal Dhingra**. 2013, Automating Physical Chemistry Laboratory using sensors and data acquisition systems, *15th CRSI National Symposium in Chemistry (NSC-15)*, February 1-3, 2013, Banaras Hindu University.
- **Sandeep Kumar Goel** and Parul Chopra (2014) Environmental reporting practices of Indian banks. *36th All India Accounting Conference and International Seminar on Accounting Education & Research*, Department of Commerce and Management Studies, Andhra University & Indian Accounting Association, Visakhapatnam, January 11-12, 2014.
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Symposium, Central University of Finance and Economics, Beijing, China, December 16-17, 2013.

- S Sripoorna, Jeeva Susan Abraham, **Seema Makhija**, Renu Gupta, **Ravi Toteja** (2013) Ciliate microbial biodiversity at Sanjay Lake, Delhi. *54th Annual Conference*, AMI, MDU, Rohtak, November, 17-20, 2013
- **Urmi Bajpai** (2013) OSDD experience with the undergraduate students' at "Workshop on Open Science" Acharya Narendra Dev College and Creative Commons, University of Delhi, South Campus, October 3, 2013. **(Invited speaker)**
- Wanchha Arya, Piyush Tiwari, Pooja Dogra, **Madhu Bala** and **Sunita Hooda** (2013) Role of tamarind triethylamine chelating resin as biosensor for monitoring of toxic metal ions from industrial waste. *National Symposium on Chemistry and Environment*, Deen Dayal Upadhyaya College, University of Delhi, March, 22-23, 2013.







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