
Platinum Jubilee Lecture Series

Instituted in the year 2004-05, MMV organizes at least one Lecture every year. In October 2010 Prof. Shormistha Panja, department of English, New Delhi spoke on Shakespeare and the Indian Stage from 19th Century up to the Present Time.

NSS and NCC

MMV is currently having 6 NSS Units and 600 NSS volunteers who always take a keen interest in all the activities organized through out the year. The year Kaumi Ekta Spatah was organized from 15-19 November 2010; Malaviya Jayanti Deepdan was held on 25 December 2010. 100 NSS volunteers were registered under the Red Ribbon Club and donated blood in the Camp on 1st October 2010. Studnets from MMV represented the University in NCC camps at Allahbad and New Delhi in Group 'A'.

Functions and Celebrations

The Independence Day and Republic Day were celebrated in the Faculty and hostel with flag hoisting by the Principal and also the sweets were distributed.

The occasion of Sri Krishna Janmashtami, was celebrated with great enthusiasm by the students of MMV. Students presented attractive Jhankies from the life of Lord Krishna alongwith bhajans. The holy month of Ramzaan was marked by organizing Roza Iftaar in the MMV hostels alongwith Hon'ble Vice-Chancellor. The Foundation Day of the University and Vasant Panchami were celebrated in all the hostels of MMV in the traditional manner and elaborate Saraswati Puja was conducted.

Thus Mahila Mahavidyalaya is growing from strength to strength every day in the quest for excellence. Prof. Behrose S. Gandhi completed her tenure as Principal, MMV on 31st August 2010. Prof. Meena Sodhi took over as Principal on 1st September 2010.

Mahila Mahavidyalaya is an emblem of Malaviyaji's dream of holistic and integrated education. In the 150th year of Mahamana's Birth Anniversary, as an important unit of the University it stands dedicated and committed to the cause of Women's Education.



Justice Giridhar Malaviya during the National Seminar on "Mahamana's Vision and Challenges of Millennium Developments Goals" organised on March 1-2, 2011

2.1.4. CENTRE FOR STUDIES

- 2.1.4.1. Food Science and Technology
- 2.1.4.2. Environmental Science and Technology
- 2.1.4.3. Genetic Disorders
- 2.1.4.4. DST-Centre for Interdisciplinary Mathematical Sciences
- 2.1.4.5. Nepal Centre
- 2.1.4.6. Women Studies & Development
- 2.1.4.7. Malaviya Centre for Peace Research
- 2.1.4.8. Integrated Rural Development
- 2.1.4.9. Social Exclusion and Inclusive Policy
- 2.1.4.10. Centre for Brain Research
- 2.1.4.11. Hydrogen Energy Centre
- 2.1.4.12. Nanoscience & Technolgy Unit/Centre



2.1.4.1. CENTRE FOR FOOD SCIENCE & TECHNOLOGY

Brief Introduction about the Centre/ Unit/Cell

Centre of Food Science & Technology was established in 2008 and is funded by Department of Biotechnology (DBT), Govt. of India for enhancing research capacity in the area of Food Science & Technology. Its mandate is to offer M.Sc. and Ph.D. programmes in Food Science and Technology and conduct research in the core areas of fluid foods including dairy foods, vegetable processing, food biotechnology, enzyme and fermentation technology.

Overall Summary on working in 2010-2011

Centre of Food Science and Technology continued with academic programmes and enrolled 11 students in M.Sc. and 2 in Ph.D. with full fellowship support to all students. Students of 2nd year were exposed to in-plant training at leading food processing industries in India. Research programmes were undertaken to enhance shelf life of value added indigenous dairy products and vegetable processing. Centre continued to receive funds from various agencies such as ICAR and Ministry of Food Processing Industries. International collaborations were pursued such as Marie Curie International Research Staff Exchange Scheme (IRSES) Programme between BHU, University of Copenhagen, Wageningen University, Netherlands. First batch of the M.Sc. students were suitably placed either in industry or in higher

studies. From this batch, 2 students qualified GATE (Graduate Aptitude Test Examination) 2010 with good percentile and 7 students got jobs in leading Food Companies like PMV, Coca Cola and Nestle. Three processing units were commissioned in Pilot Plant Hall of the Centre of Food Science and Technology - Milk Processing Plant, Fruit and Vegetable Processing Unit and NIRO-Production Minor Spray Dryer. Besides state of art facility is also added in the laboratory.

Research Progress

Centre of Food Science and Technology is undertaking research on Food Science and Technology in collaboration with other Labs of Institute of Medical Sciences and Institute of Technology, BHU, Varanasi. These research areas are Dairy Foods, Fruits and Vegetable Processing, Food Biotechnology, Fermentation Technology, Enzyme Technology and Functional Food Development etc. Some of the Salient Research works undertaken in different areas are given below:

1. Dairy Technology

- The Development of Peda sweetened with Aspartame and Sucralose
- Production of Lactic Acid from Whey from *Lactobacillus delbrueckii* in solid state fermentation
- Production of dahi using DVS (Direct Vat Set) cultures and its evaluation at different incubation periods.

- Dairy industry in Varanasi region: issues and perspective

2. Fruit and Vegetable Processing

- Physicochemical properties & sensory attributes of Aloe vera ready-to-serve (RTS) beverage supplemented with mint and ginger
- Study of physicochemical and sensory properties of whey based guava jelly
- Evaluation of different tomato cultivars for Juice preparation
- Studies on whey mixed orange juice based probiotic drink

3. Food Biotechnology

Microbial production and optimization of PHB-PHV copolymers utilizing Agro - industrial waste



Milk and Milk Products Processing Plant
Installed at BHU, Varanasi



Prof. D. P. Singh, BHU Vice Chancellor and Dr. Susan Henry, Dean, College of Agriculture & Life Sciences, Cornell University, USA exchanging MoU for cooperation in Food Science and Technology on April 21, 2010.

4. Enzyme and Fermentation Technology

Kinetic study of Pullulanase production.

- Process optimization of Herbal Shrikhand
- Process optimization of Guava Shrikhand

5. Cereal based functional foods

- Optimization of the process of functional sour bread technology from coarse cereals
- Designing a functional food by incorporating shatavari powder in bread.
- Optimization of the protein rich dark chocolate and its quality evaluation during storage with addition of soya flour
- Development of Process and Shelf Life Prediction Model for Instant Pearl Millet Kheer Mix



Inaugural Session of the International Workshop on Food Science Education and Research held on April 7, 2010



Registrar, Banaras Hindu University and Registrar, National Dairy Research Institute exchanging MoU for cooperation in Food Science and Technology on 7th April 2010.

2.1.4.2. CENTRE FOR ENVIRONMENTAL SCIENCE & TECHNOLOGY

The Centre for Environmental Science & Technology (CEST) is an interdisciplinary university centre, established in the Faculty of Science, Banaras Hindu University with an objective coordinating environmental programmes of the University and transfer appropriate eco-friendly technologies for sustainable development.

Academic Programmes

M.Sc. (Tech.) and Ph.D. Programmes

Three years (6 Semesters) M.Sc.(Tech.) programme in Environmental Science & Technology is running at Rajiv Gandhi South Campus, Barakachha to meet the national and international requirements of Environmental Monitoring, Management, EIA, ISO certification, Environmental Legislation, Hazards and Risk assessment etc. This course bridges the gap between Science & Technology and provides extensive training to the students for getting jobs in Universities, Colleges, Industries, Ministries, Judiciary, Research organizations, Multinational Companies, Administration and NGO's etc. Also, Ph.D. Programme in Environmental Science & Technology has been started and the students are enrolled from NET and CRET categories as per university rule.

Other Activities

Water Conservation Programme

The CEST has started water conservation programme to solve the water crisis with the help of Ministry to Rural Development, Govt. of India. For surface rain water harvesting 5 ponds are renovated and for artificial ground water recharging 7 roof top rain water harvesting structures have been constructed in the main campus of Banaras Hindu University.

For public participation and public awareness, 11 Water Conservation Societies (WCS) in different

Gram Sabha of the surrounding rural areas of the University have been established. In each Gram Sabha for each WCS, the Gram Pradhan is nominated as convener and 10 male +10 female members are opted. Training of 250 WCS members including students from NCC, NSS, NGO's & Govt. personnel has been completed.

Seminar/Symposia/ Workshop and Documentary

The CEST has organized an International Congress on "Recent Advances in Environmental Science & Technology", national workshop on "Ganga Water Pollution and its Mitigation", "Aviral and Nirmal Ganga: Issues and Challenges" and prepared a documentary film named "Rain Water Harvesting: A Silent Move".

Technology Transfer Programme (TTP)

Technology transfer programme of the university has been started to fulfill the vision "Knowledge and Technologies generated by the Banaras Hindu University should benefit society at large and neighboring districts in particular" of Pt. Mahamana Madan Mohan Malviyaji, Founder of the Banaras Hindu University. Main objectives of the Technology Transfer Programme (TTP) are as follows:

- Identification of current region specific environmental issues,
- Inventory of natural and anthropogenic resources.
- Identification of Eco- friendly Technologies available in the University campus, national and international level.
- Testing and demonstration of available technologies for its field implementation.
- Development of region specific newer environmentally sound technologies.

Biodiversity Park

- The CEST has established a 'BIODIVERSITY PARK' at its South Campus on 500 acre land for in-situ and ex-situ conservation of biodiversity which shall act as model for biodiversity conservation in tropical countries of the world. About 174 plant species have been identified in the Vindhyan region including 22 endangered species. Main objectives of the Biodiversity park are as follows:
- To identify species diversity of the population, calculate floral diversity index and create database for the tropical countries in general and Vindhyan region in particular.
- To identify critically endangered, endangered and vulnerable species and develop species conservation strategies for protection.
- To create a “gene-bank” for aquatic and terrestrial flora and grow all possible plant species of the Vindhyan region in the Biodiversity Park.
- To utilize soil and water conservation strategies for better management of the Biodiversity Park.
- To conduct training programme to enhance the public knowledge and capacity building for adaptive management.

Pollution Control and Management of River Ganga Basin

- The CEST has started researches on different issues of Ganga Water Pollution such as evaluation of the impact of sewage and industrial effluents discharge, dead body cremation on different burning Ghats and release of many other pollutants into Ganga. Main objectives of the programme are as follows:
- Monitoring and assessment of important pollution sources of river Ganga
- Monitoring and assessment of treatment plants
- Advanced waste water treatment and its recycling
- Biological control of pollution of Ganga water
- Assessment of Biodiversity and its conservation
- Socio-economic dimensions of Ganga water pollution.

Awards & Honours

- Co-ordinator of the CEST, Prof. B.D. Tripathi is nominated Expert Member of the National Ganga River Basin Authority, Govt. of India.



2.1.4.3. CENTRE FOR GENETIC DISORDERS

The Centre for Genetic Disorders, initially funded by DBT (2006-2011) is a newly established Centre by BHU in the Faculty of Science. The vision of the centre is to make a healthy and health-conscious society with reduced genetic burden and better management of disease. The centre's focus is to estimate the burden of genetic disease on the community, unravel their underlying molecular mechanisms and develop strategies to diagnose, treat and manage them. To achieve this, the centre has research programmes on genetic and complex disorders, a diagnostic unit for chromosomal and genetic disorders and a teaching programme to produce technically skilled resource personnel for research, diagnostics and management. Some of the salient features of the last year's activities are listed as follows:

1. Provided diagnostic service for chromosomal/genetic disorders in nearly 400 cases including those of families for DMD and -thalassemia.
2. Population screening for thalassemias (>1600 from Bihar, Chhattisgarh, Jharkhand and Eastern U.P.) reveals a carrier frequency of 3% which is comparable or marginally lower than the frequency in other parts of the country.
3. A survey of the "healthy" population from Eastern Indian region (Eastern U.P., Bihar, Jharkhand and Chhattisgarh) shows hyperhomocysteinemia (hypHcy) in nearly 25% of the population. hypHcy increases susceptibility to a variety of disorders (cardio-thoracic, Neural tube defect etc.).
4. Susceptibility to hypHcy shows strong genetic correlation but the major cause of hypHcy in this population is vitamin B12 deficiency in more than 40% of the studied samples.
5. Identified a single, novel locus on 10q25.1 for split-hand/foot malformation which is a locus.
6. In the Cleft-lip and palate also a new locus on chromosome 16q12.2 has been identified. These findings are now being written for publication.
7. The Centre conducts its research and

diagnostic activity in collaboration with Dept. of Biological Sciences and Engineering, IIT, Kanpur, Dept. of Pediatrics, IMS, BHU, Dept. of Ophthalmology, IMS, BHU, Dept. of Dental Science, IMS, BHU, GS Memorial Plastic surgery Hospital and Trauma Centre, Varanasi.

Thrust Area of Research

The thrust area of research of the centre is Molecular Human Genetics. Along with the basic and clinical research in Human Molecular Genetics, the centre also provides patient care services through Cytogenetic and Molecular Genetic tests. This is the only one of a kind facility at Varanasi and the adjoining areas in Uttar Pradesh. This centre also synthesizes Taq polymerase (which is commercially a costly reagent) and its buffer of high quality (tested

at various levels) and ready to provide to other laboratories on demand.

Laboratories/Facilities available at the Centre

Following special laboratory facilities are available in the centre for research and training purposes; Short and long term animal tissue culture, Karyotyping work station and fluorescence microscopy, PCR, DNA Sequencing; Automated DNA sequencing, Microsatellite typing and Genotyping and Gel doc System.

These state of art facilities are being successfully used for patient care and various research programmes/endeavours (both basic and clinical) of the centre. Annually Centre provides Cytogenetic and Molecular diagnostic services for nearly 500 referred cases from whole Eastern Uttar Pradesh and Western Bihar at extremely moderate charge.

Ongoing Research Projects:

S. No.	Project	Investigators	Funding body	Budget (in Lakhs)
1.	Programme Support on Genetic Disorders (Core grant)	PI: R Raman Co PI: A Kumar Co PI: SK Singh	DBT	394.41
2.	Molecular Genetic Analysis of Orofacial Disorders	PI: R Raman Co PI: SK Singh S Ganesh	-do-	25.68
3.	A population study on the 1-Carbon metabolism pathway genes, level of homocysteine, nutrition status and disease susceptibility	PI: R Raman	-do-	27.13
4.	Genetics of tooth development: genes underlying tooth agenesis in human	PI: P Das Co I: R Bansal	-do-	39.0

Other projects:

Other important research projects have been started; of them some are as follows:

S.No.	Project	Investigators
1.	Renal cell carcinoma pathogenesis	P Das
2.	Molecular basis of heterogeneity in chromosomal disorders (Down Syndrome, Turner Syndrome)	A K Rai
3.	Genomics of congenital limb malformations	A Ali, SK Singh
4.	Development of genetic therapeutics for DMD	A Ali

Future Programmes:

Teaching: The Centre proposes to run a one year post-M.Sc. diploma on “Chromosomal and Molecular Diagnostics” from the academic session 2011-2012. It is aimed to prepare persons who are technically well trained to work in R & D, pathology, molecular biology and nuclear medicine labs.

Technology Development: In collaboration with the Departments in IMS (Ophthalmology and

Orthopedics) and Department of Bio-Engineering, IT, BHU, it is planned to develop technologies of cultivating stem cells for different tissues and make them available for therapeutic purposes.

Research: Continue with the ongoing research programmes and initiate some new questions such as genomics of infertility, facial disorders and population genetics of metabolic pathways which affect several functions.



Proteomics facility of Interdisciplinary School of Life Sciences housed at Centre for Genetic Disorders



Automated Karyotyping facility



Molecular Biology Laboratory



Microarray and Real time PCR workstations of ISLS housed at Centre for Genetic Disorders



2.1.4.4. DST-CENTRE FOR INTERDISCIPLINARY MATHEMATICAL SCIENCES

The move to establish the DST Centre for Interdisciplinary Mathematical Sciences (DST-CIMS) was initiated in July, 2007. Following a series of meetings with eminent scholars of Mathematical Sciences and DST officials, the sanction for the establishment of the centre was received from the DST in November, 2007. However the centre started its functioning in Jan. 2008.

The Centre was established to impart training and promote research in Mathematical Sciences and to evolve core group research facilities in Banaras Hindu University in its chosen thrust areas. To this end, the DST-CIMS has conducted various activities throughout 2010-11. This was achieved by organizing a number of national level training programmes, workshops and invited lectures by eminent mathematical scientists (details given below). Simultaneously, CIMS has continued to develop and add excellent infrastructure and facilities for the faculty, students and visiting guests to undertake their academic activities in a conducive and vibrant environment.

The working/activities of the Centre can be classified into:

- Organization of Training Programmes/ Workshops
- Organization of Lectures
- Research in Thrust and Related Areas
- Participation/interaction of the CIMS, through its members, in academic and research activities outside BHU
- Augmentation of the infrastructural facilities (e.g., building, computational facilities including software, books for library, etc.), the details of which have been provided.

The main objective of the centre is to ensure intensification of scientific researches in the thrust areas by means of:

1. Creating core groups /units around outstanding scientists.
2. Setting up of facilities in areas of high priority.
3. Evolving nationally coordinated programmes in interdisciplinary areas.

4. Organizing lecture series and contact programmes.
5. Providing training to Young Scientists to pursue R&D in these areas.

Participating Departments in DST-CIMS

- Department of Mathematics
- Department of Computer Science
- Department of Applied Mathematics
- Department of Statistics

Thrust areas recognized

- Wavelets and Functional Analysis
- Mathematical Modeling and Computational Aspects
- Discrete Mathematics and Applications
- Bayesian Statistics and Stochastic Modeling

Workshops/Training Programmes / Conferences Organized

1. Advanced Training Programme in Functional Analysis – 2009 (ATPFA-2009) (June 21, 2010 to July 03, 2010) Convener: Dr. Harish Chandra, Department of Mathematics & DST-CIMS, BHU.
2. National Workshop cum Training Programme on Recent Trends in Fluid Mechanics (NWCTP-RTFM) (July 6 - 12, 2010) Convener: Dr. B. S. Bhadauria, Department of Mathematics & DST-CIMS, BHU.
3. Advanced Training Programme in Linear Algebra & Analysis – 2009 (ATPLAA-2009) (25 November, 2010 – 04 December 2010) Convener: Prof. A. K. Srivastava, Department of Mathematics & DST-CIMS, BHU.
4. Winter School on Statistical Estimation and Modeling: Topics on Least Square Methods & Ill-Conditioned Inverse Problems in Imaging, Natural Language Processing & Information Retrieval, and Speech Processing. (February 2 –15, 2011) Convener: Dr. Manoj Kumar Singh, DST-CIMS, BHU.

Visits/Lectures by Distinguished Scientists

1. Prof. Sharief Deshmukh, King Saud University, Saudi Arabia (02-06 Aug. 2010)

2. Prof. Juan Enrique Martinez-Legaz, Autonomous University of Barcelona, Spain (25-26 Aug. 2010)
3. Prof. Amy Ong Tsui, Director, The Bill & Melinda Gates Institute of Population & Reproductive Health, John Hopkin Bloomberg School of Public Health, Baltimore, USA (04 Sep. 2010)
4. Mr. R. G. Mitra, UNICEF (29 Nov. 2010)
5. Prof. Ruichi Ashino, Osaka Kyoiku University, Japan (30 Nov. 2010)
6. Prof. Akira Morimoto, Osaka Kyoiku University, Japan (01 Dec. 2010)
7. Prof. Takeshi Mandai, Osaka Electro-communication University, Japan (01 Dec. 2010)
8. Prof. Esko Turunen, Tempere University of Technology, Finland (09-14 Dec. 2010)
9. Dr. Tarkeshwar Singh, BITS Pilani, K. K. Birla Goa Campus, Goa (21 Dec. 2010)
10. Prof. Young Jin Suh, Kyungpook National University South Korea. (31 Dec. 2010)
11. Prof. S.L.Singh, Ex Dean, Faculty of Science & Head, Dept. of Mathematics, Gurukul Kangri Vishwavidyalaya, Haridwar, Uttarakhand. (21 Jan. 2011)
12. Prof. S. P. Singh, Canada (25 Feb. 2011)
13. Prof. Kiran Bhutani, Catholic University of America, Washington. (01 Mar. 2011)
14. Lecture of Prof. H. Joshi, York University, Toronto, Canada (03 Mar. 2011)
15. Dr. Aaron Williams, Carleton University, Canada (03 Mar. 2011)
16. Prof. Andrey Viktorovich Tetenov, Gorno-Altai State University, Russia. (04-12 Mar. 2011)

Future Plans

We plan to continue organizing several training programmes and workshops in various fields. Also a international conference is proposed to be organized. Several Intensive Interaction Programmes are also being planned with the help of outside scholars and experts of high eminence.



2.1.4.5. CENTRE FOR THE STUDY OF NEPAL

An International Seminar on Internal Conflict in Nepal: Transnational Consequences was organized by the Centre for the Study of Nepal and Malaviya Centre for Peace Research, Banaras Hindu University, in collaboration with the Centre for Security Analysis, Chennai on 4-5 June, 2010. The Inaugural function of the seminar was held in the Senate Hall of Swatantrata Bhavan, Banaras Hindu University and was presided over by Hon'ble Rector of Banaras Hindu University Prof. B.D. Singh. Lt. Gen. (Retd.) V. R. Raghavan, President, Centre for

Security Analysis, Chennai, was the Chief Guest in the function. Prof. Anjoo Sharan Upadhyaya, Coordinator of Centre for the Study of Nepal welcomed the guests and presented the theme of the seminar.

She hoped that this rigorous academic exercise will delve deep into the different transnational dimensions of Nepalese conflicts especially in the sub continental context and its global milieu. In his opening remarks Lt. Gen. (Retd.) Raghavan focused on the security issues within and across national



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border. The vote of thanks was offered by Prof. Priyanker Upadhyaya, Coordinator, Malaviya Centre for Peace Research.

The second day and concluding session of this seminar was also held on the same venue. Lt. Gen. (Retd.) V R Ragavan's remarks were followed by the opinion of Brig. (Retd.) Keshar Bahadur Bhandari and Mr. Chiran J Thapa. Vote of thanks was offered by the Dean, Faculty of Social Sciences, BHU, Prof. A K Jain. Prof Priyanker Upadhyaya offered memento to all participants as a token of gratitude. The programme was conducted by Prof. Anjoo Sharan Upadhyaya.

Prof. Anjoo Sharan Upadhyaya, Coordinator of Centre attended the Annual conference of Peace Studies at University of Massachusetts on 28th October, 2010. She also presided at the session on Indigenous Approaches to Conflict Resolution in the conference.

The Stanford University, Stanford (USA) invited Prof. Anjoo Sharan Upadhyaya, Coordinator of Centre to deliver a lecture. She delivered a lecture on Post Conflict Nepal: Its Impact on India on 30th November, 2010.

An International Seminar on India-Nepal Relations was organized by the Centre for the Study of Nepal with the support of B.P.Koirala India-Nepal Foundation, New Delhi from 28-30 March, 2011. Hon'ble Vice Chancellor Prof. Madhab Prasad Sharma, Tribhuvan University, Kathmandu inaugurated the seminar by lighting the lamp. Prof. Mallikarjun Joshi, Chairman of International Centre, BHU welcomed the dignitaries and guests and Prof.



Anjoo S. Upadhyaya presented the theme of the seminar. Souvenir of the seminar and the 10th volume of Nepal Centre's journal Indian Journal of Nepalese Studies were released on this occasion.

Final session of the day was Chaired by Prof. Anil Kumar Jain and Co-chaired by Dr. PC Pradhan. Dr. Sanjay Srivastava and Dr. Khadka KC. Eighteen presentations were made in this session. Ms. Afreen Khan presented a paper on भारत नेपाल खुली सीमा : प्रबन्धन की चुनौतियाँ.

The Valedictory function of the seminar was held in the morning of 30th March, 2011. The function was presided over by Prof. AK Jain, Dean, Faculty of Social Sciences, BHU.



2.1.4.6. CENTRE FOR WOMEN'S STUDIES AND DEVELOPMENT

The Centre for Women's Studies & Development was formally established in the year 1988 under the 7th five year plan by the UGC. Due to its excellent performance, the UGC Visiting Committee declared the Centre as one of the resource or Nodal Centres in 1997, which is the highest recognition of excellence. The Centre has by now completed 32 projects. Out of these one was a major “**Indo-Dutch Project on Rural Sanitation and Health Education in U.P.**” covering 27 villages and nine thousand families. It has by now organized **46 National Seminars/Workshops/Colloquiums** and **57 Special Lectures/Group-Discussions**. To create further interest in this area and to bring out the female voices in Indian Literature, the Centre in collaboration with Indian Council of Cultural Relations, New Delhi organized one day play on '**Lal Ded**' on 15th December 2010, conceptualized, directed and enacted by famous artist Ms. Meeta Vasistha.

The Centre has successfully started **one year** P.G. Diploma Course in Gender and Women's Studies in September 2010. It has by now organized 10 UGC Refresher Courses, each of three weeks duration and thus has educated more than 455 teachers in women's-studies. In order to create health awareness among rural population, the Centre regularly organizes health education and health check-up camps in rural areas. The presence of the centre has also been felt through such events as Mahila Adalat, Painting Competitions and Academic meets with faculty members, NGOs and students.

The Centre's efforts for clustering at different levels has created an example for other departments. It has by now clustered at three levels: (1) With other sister departments of BHU (2) With different NGOs of Varanasi such as Social Action and Research Committee, World Literacy of Canada, U.P. Volunteer Health Association, Shri. Shambhu Nath

Research Foundation and Mahila Samakhya. (3) With its branch '*Tejaswini*' in Arya Mahila Degree College, Varanasi.

Women's Studies is not just any discipline but it should be instrumental in bringing out the social changes. This view had been expressed by famous Hindi critique, Prof. Namwar Singh in the inaugural of the P.G. Diploma course in Gender and Women's Studies and special lecture on 'Women and the Question of Culture' at Women's Studies Centre on 20.09.2010. He said that women's studies should be developed as the multidisciplinary subject including literature, politics, history, medicine and genetics. Its vision is broad in a sense that it is not only an academic discipline but like science and medicine it has its practical relevance in the social field



Prof. Namwar Singh addressing the students on the occasion of the inaugural of one year P.G. Diploma Course in Gender and Women's Studies.

The two day national seminar '**Female Voices in Indian Literature: With Special Reference to Andal, Akka Mahadevi, Lal Ded and Meera**' was inaugurated in the Centre for Women's Studies and Development, BHU by the distinguished guests on the dais. It was followed by lighting of lamp and rendition of Kulgeet.

Prof. Shubha Rao, Coordinator welcomed all the guests and participants. Prof. Sadanand Shahi introduced the theme of the seminar and said that women's studies is not only the study of women's liberation but also of men's liberation.

Prof. A. K. Jain, in his presidential address, said that the main spirit of *bhakti* is love. He said that knowledge is useful when it is combined with humility. In this sense, the rich tradition of *bhakti* saints especially women saints becomes very relevant in present times.



Prof. H. S. Shivprakash distributing certificate to the participant. On his left is Prof. D. P. Gupta

In a special lecture delivered by Dr. Claudia Orenstein, Hunter College, CUNY, New York on 'Women and Asian Theatre' traced the history of theatre in U.S.A. Gradually, the situation changed and women's issues concerning her problems like domestic violence, her identity, her sexuality emerged as central issues.

Prof. Subhash Mendhapurkar, Director, Sutra Foundation, Himachal Pradesh, the Chief Guest on this occasion started his lecture by questioning the relevance of education given to women. He emphasized, we should try to know in what way this education has empowered women or it has strengthened the patriarchal formation.

Prof. Kiran Barman, the Coordinator of the Centre in her welcome address said that Women's Studies is not against male because male includes our father, brother, sons. But there is a need to fight against the existing patriarchal thinking, the prevalent evil customs and rituals.

In his presidential address Prof. A. K. Jain, Dean, Faculty of Social Sciences, BHU said that while there is only the biological difference between male and female, the capabilities of both are equal. So, there is a need to create positive environment for women for the full flowering of their talent.



2.1.4.7. MALAVIYA CENTRE FOR PEACE RESEARCH

The Malaviya Centre for Peace Research (MCPR) was launched in 1998 under the VIII UGC Plan as the first centre of its kind in the Indian university system. In just over a decade, the MCPR has established itself globally as a hub of scholarly and practical activities concerning varied dimensions of conflict analysis and sustainable peace.

The MCPR offers a Masters Degree in Conflict Management and Development and a Ph.D. Program drawing candidates from diverse disciplines. Through its transdisciplinary researches, workshops and training programs, the Centre offers analytical and problem solving insights to policy makers and others concerned with the management and resolution of conflict. The MCPR works closely with various civil society organizations to elicit, and analyze data on various types of conflict both intra-state and inter-state and trajectories of conflict resolutions drawing on various disciplines of social sciences. In addition, the faculty and researchers at MCPR have served as a resource to training / orientation program at Foreign Service Institute,



Ministry of External Affairs, Naval War College and National Defense College of Ministry of Defense and also at Institute of Defense and Strategic Analysis (IDSA). The MCPR has a range of international collaborations with such reputed institutions as PRIO (Oslo), UN University of Peace (Costa Rica). Most recently the MCPR has been offered a UNESCO Chair for Peace and Intercultural Understanding. The UNESCO has established the *UNESCO Chair for Peace and Intercultural Understanding* at the Malaviya Centre for Peace Research from December 2010. Principal Objectives of the Chair is to:-

- Explore and highlight the potentials of cultural and, in particular religious diversity as a resource for peace rather than a barrier;
- Create a critical mass of trained and sensitized peace workers in this particular field;
- Create an integrated regional hub for research, training, information and documentation in the fields of peace, human rights, conflicts resolution and human development sensitive to the issues of structural and cultural diversity;
- Develop a curriculum for Asian and African Universities focusing particularly on the cultural and religious dimension;
- Promote the preservation of public spaces of communally inclusive heritage and cultural practices in India and elsewhere, and sensitize media and civil society about the common

grounds between diverse cultures; and peace building.

- Create and reinforce networks of academic institutions in India and abroad concerned with intercultural peace and intercultural practices, to initiate Masters/PhD programs for peace and development, and to host an online site for interreligious dialogue.
- An MoU was signed with the **International Peace Research Institute (PRIO)**, Norway in 2010 to undertake collaborative Research Project and Scholarly Exchange Program. (2010)

Institute of Peace Research and Intercultural Understanding (IPRIU) is being envisaged in near future which would incorporate the Malaviya Centre for Peace Research, UNESCO Chair for Peace and Intercultural Understanding and a Centre for Multifath Dialogue. The Multifath Centre would be a shared space where scholars and activists and religious leaders would be invited to engage in interfaith dialogue. The participants may be drawn from the Baha'i, Buddhist, Christian, Hindu, Jewish, Muslim and Sikh communities alongside the peace researcher and activists. The idea is to promote studies and training programs which could bring on a single board the norms, pedagogy and praxis of interreligious peace and interfaith dialogue as part of the learning experience for all students.





2.1.4.8. CENTRE FOR INTEGRATED RURAL DEVELOPMENT

India lives in villages and Development of village means development of the country. The Centre for Integrated Rural Development of Banaras Hindu University was established in 1980 in Reponses to the National Programme of Integrated Rural Development, initiated in 1979 by the Government of India.

Networking

IRDP is committed to inter organizational collaboration and works to establish links between organizations concerned with rural development both in India and abroad.

IRDP at a Glance

Women empowerment Programme

Women living in the rural areas of Kashi vidyapeeth Block & the near by areas of BHU campus are learning tailoring, cutting & Knitting skills. About 30 women from the village & the BHU campus are coming regularly in two siffts w.e.f. 11 a.m. to 1.00

p.m. & 2 p.m. to 4 p.m. to know the technical know-how of tailoring.

Herbal cultivation training programme

25 trainees from the neighboring district i.e. Chandauli, Bhadohi, Mirzapur, Gazipur, Sonbhadra were trained for Herbal promotion programme, some trainees of current session of 2010-2011 started their own nursery development program in their back yards to make them self sufficient.

Proposed program to import special training to rural women

About 40 women from four block of varanasi would be given specialized training in cultivation & marketing of Medicainal herbs. They would also be apprised about the importance of herbs and the local plants. Women would also be taught about the marketing strategy & how to prepare medicines from the plants. A proposal has been accepted by the authorities of Zila Yojana of Varanasi on 25th April 2011

IRD&M course

The P.G. Diploma course in Rural Development & Management is getting momentum in the campus 25 students were admitted for the current academic session of 2010-2011 and after completion of course were appeared in the final exam.

National Seminar :

Promoting low carbon practices and plantation drive common wealth games 2010 (28 February 2011)

On 28 February 2011 IRDP in collaboration with CENTRE for Environment Education, United nations development programme, & small grant program, organize one day poster presentation and quality program. Student of Durga charan Girls Inter College, Kashi Balika siksha Niketan Inter College, Siv Kumar Singh Inter College, Varun Manav Sandadhan Samittee, Jyoti Samsthan, the representative of sachidanand sikshan sansthan the IRDM students & the trainees of the Centre participated in the total activities.

The program was presided over by the Prof. A.K.Jain Director, IRDP & Dean FSS, Prof.

B.N.Pandey of Law college was the Chef Guest Prof. D.K.Sujan & Dr. Seema Tiwari were the speakers, vote of thanks was given by Dr. S.K.Tripathi & the program was conducted by Dr. Sunil Kumar

Organisation of Water conservation Sangosthi

On 15th February 2011 IRDP in collaboration with DSC (District Science Club) organize a scientific competition poster presentation and a quiz on water conservation, quality maintenance and its treatment at Kashi Balika Siksha Niketan, Mahmoorgnraj, Varanasi. The students of Govt. Girls College, Basant Kanya Inter College, Kamlapati Inter College, Nivedita Balika Inter College participated in the competition. The trainees of one year herbal cultivation training program of IRDP also participated in the poster exhibition at the occasion.

Prof. D.K. Sujan of Institute of Agricultural Science was the chief Guest, Dr. Seema Tiwari of M.M.V., BHU was the chief speaker & the program was presided over by Dr. S.K.Tripathi Principal of Kashi Balika Siksha Niketan gave the vote of thanks & National convenor of Jan Swasthya parampara Manch (JSPM) Dr. Sunil Kumar conducted the sangosthi.

2.1.4.9. CENTRE FOR STUDY OF SOCIAL EXCLUSION AND INCLUSIVE POLICY

The recently delivered UGC Centre for Study of Social Exclusion and Inclusive Policy in BHU has proposed that the category of socially excluded people represents a perspective to studying and understanding Indian society and history, recent experiences of colonialism and nationalism, democracy, modernity and the larger society world over. So-to-say, more importantly, social exclusion is not a singular experience. What holds the socially excluded group together is the structural fact that they have all been historically socially excluded, that is, subjected to exclusion of varying degrees and the rejection of their identity. However, with the passage of time and across the space, the modern academia, with the spurt in ontological and epistemological perspectives on identity formation and historical facts, views that social exclusion is not a permanent state of being but a temporary one; a state determined by the politics of the contemporary times. We are also wary of the dangers of defining, demarcating and theorizing this space. Once, that is, Social Exclusion Studies would emerge as an academic discipline, a social exclusion perspective would become a space that the mainstream can seek to occupy and social exclusion would settle into becoming yet another approach for an understanding of the world around us.

In the humanities and social sciences and the academic in general, the exclusion of socially depressed groups in state funded institutions despite the policy of positive discrimination continues and remains inadequately addressed. The subaltern studies enterprise has yet to admit a dalit historian in its charmed circle. Such structured exclusion leads to a significant number of scholars making dalit, minorities, women and disabled the subject of their

research and documentation. However, there are a lot of limitations in the theoretical claims that have been made on behalf of the socially excluded groups by such scholars and the conscientized people.

Following lectures was organized during the academic session 2010-2011.

1. Prof. Imtiaz Ahamad, CPS/SSS, JNU, New Delhi delivered a lecture on Status of Minorities on 30th April 2010 to 1st May 2010, at Media Conference Hall, PRO Office, BHU

2. Prof. Susan Vishwanathan, CSSS/SSS JNU, New Delhi delivered a lecture on New Challenges of Primary School Education With Regard To Inclusion of Local Communities In Neighbourhood Schools on 25th September 2010 at Conference Hall, New P.G. Building, FSS, BHU.

3. Prof. T.N. Madan, Institute Of Growth Economic, New Delhi delivered a lecture on Religion and Society in Our Time on 11th Oct. 2010 at Conference Hall, New P.G. Building, FSS, BHU

4. Dr. P.L. Punia, Chairman, National Commission For Scheduled Castes, New Delhi delivered a lecture on Social Cohesion and National Development on 11th Jan. 2011 at Senate Hall, Swatantrata Bhawan, BHU.

In addition to the above, the following activities have been done:

- A base line study on *“Protection of Child Rights in three Districts of Jaunpur, Mirzapur and Sonbhadra of Uttar Pradesh”* under the joint aegis of CSSEIP, UNICEF and Govt. of Uttar Pradesh.

The Centre has conducted Workshop on *“Subalternity and Police”* held on the month of 5th - to 9th Sept. 2010.



Special lecture - "Social Cohesion and National Development" organized on Jan. 11, 2011
Sri P L Punia, Chairman, National Commission Schedule Cast was the Chief Guest



Tree Plantation by Dr. Karan Singh, Chancellor during inaugural function of
the new building of Faculties of Arts and Social Sciences

2.1.4.10. CENTRE OF BRAIN RESEARCH

On the basis of successful track record of research on brain biochemistry by the faculty members of Biochemistry section, Department of Zoology, 'Brain Research Centre' was approved as a part of XIth 5 year plan of UGC in the Faculty of Science with the nodal centre in the Biochemistry Section of Zoology Department. The centre is mainly involved in research activities in the area of neurobiology and neurological disorders with a mandate to understand brain structure and function at molecular level so that proper therapeutic interventions could be designed for the cure/management of old age dementia and other neurological disorders like Alzheimer's Parkinsonism, Huntington's diseases and the brain disorders associated with metabolic dysfunctions like hepatic encephalopathy, diabetic neuropathy etc.

The faculties are involved in the research areas of Molecular biology of brain aging, Regulation of Alzheimer related genes, Focal ischemia, Neurobiology of hepatic encephalopathy, Regulation of FMR1 gene in aging brain and Regulation of Pax6 in brain.

The activities of the centre

1. Advance level research in the area of Brain development, aging and neurological disorders,
2. Organizing short term symposia, workshops etc to disseminate knowledge and to train young researchers in the area of Neurobiology
3. Organizing brain awareness programmes for popularizing the importance of neuroscience among young students and the public in general.

During the year 2010-11, the centre has made

commendable progress in almost every aspects of the centre.

Research highlights:

- Important role of estrogen receptors alpha & beta.
- Age and sex dependent changes in the expression of candidate genes for Alzheimer's disease like APP, ApoE, PS1 and PS2, implicating the role in brain function during aging.
- Identify GRM of novel pathway of synaptic signaling, that is modulated by herbal products in amnesic conditions.
- Age and sex dependent changes in the regulation of FMR1-gene, suggesting its significant roles in the development of mental retardation during aging.
- Methylation of UTR sequences of FMR1 gene and interactions of various trans-acting factors with FMR1 promoter provide mechanistic aspects of regulation of this gene in aging brain.
- In-silico analysis of mutations in Pax6 genes and its probable implications in brain functions.
- Identified interaction partners of Pax6 proteins to umarel its autoregulation and its implication in neuronal survival.
- Developed TAA-induced chronic type HE model of rat has been to understand neurobiology of hepatic encephalopathy.
- Differential expressions and regulations of different NOS implicated in the pathogenesis of low grade minimal HE.

2.1.4.11. HYDROGEN ENERGY CENTRE

Energy, its availability and use are fundamental to mankind in a manner in which no other issue is. Unlike other requirements, energy is required for the survival of mankind and is required in increasing amounts with the increase in the life expectancy, rise in the living standards and increase in the population. For example, as we want to increase mobility and efficiency of work, the transport particularly the road transport would require increasing amount of energy in the form of liquid fossil fuel, the oil/petroleum. The production, the procurement and use of energy poses logical and economic problems concerning sources of supply, storage, utility, pollution and equity. It may be pointed out that Hydrogen is the only fuel which can successfully circumvent climate change originating in large parts due to CO₂ from petroleum based vehicular emissions. Hydrogen unlike other alternative fuels like gasohol, CNG, biodiesel etc. has no carbon hence when burnt in IC Engine as fuel it converts to steam (water) i.e. H₂O. There is no CO₂ emission whatsoever and hence Hydrogen will not lead to any climate change. In view of above, the Hydrogen Energy Centre is focused on R&D Efforts and applications of Hydrogen Energy.

The research focus is in the following areas of the hydrogen Energy:

- Studies of enhancement of storage capacity upto ~6 wt% in the intermetallic system of LaNi₅ and ZrFe₂ type through material tailoring
- Investigations of composite intermetallic materials to obtain required storage capacity of 6 wt%.
- Investigation on circumventing limitations of the new complex hydride NaAlH₄ and to turn it into viable storage system.
- Studies of new complex hydrides such as Mg₂FeH₆ and catalyzed Mg
- Carbon Nanotubes as new electrode materials for hydrogen production with about double efficiencies as compared to conventional electrode.
- TiO₂ Nanotubes as new photo electrode materials for solar hydrogen production.

- Hydrogen Production from Vacuum Residue
- Photocatalytic decomposition of Hydrogen Production
- Photocatalytic Hydrogen Production
- Isolation and characterization of novel hydrogen producing bacterial strains from extreme conditions like sewage sludge, acidophilic / alkalophilic and high temperature regimes.
- Characterization of other agro-waste feedstock technology for effective substrate to hydrogen conversion efficiency.
- Identification of barriers that limit biohydrogen production and strategies to overcome these in order that the commercialization of the process becomes a reality.
- Scale up of hydrogen production through pilot-scale studies.

Research Projects:

The associated faculty members with the centre are currently undertaking several externally funded research projects on the current topic from different funding agencies, Govt. of India. Recently, Ministry for Non-conventional energy has awarded this centre a mega mission mode project to work on Hydrogen Storage Materials (Hydrides).

Future Programmes:

Teaching & Research: The centre is running an elective paper at post graduate level in Physics on Hydrogen Energy in Physics Department which is the nodal Department. It is also aimed to prepare manpower who are technically well equipped and are able to work in R&D labs all over the world in the field of Hydrogen energy.



2.1.4.12. NANOSCIENCE & TECHNOLOGY UNIT/CENTRE

Banaras Hindu University is the most significant hub of holistic education, has several interdisciplinary and transdisciplinary research units/centres. One of these, Nanoscience and Technology Unit/Centre is funded by UGC and DST. This centre is making its mark at the national and international levels in a number of frontier areas of nanoscience & technology. This centre is deeply involved in research. The former president Dr. A.P.J. Kalam in his nationally televised broadcast on 28th February, 2007 has considered the work on carbon nanotube filter of BHU NST Unit as one of the top five pieces of research done in the country. Recently in 2011, Nature India has considered the work on "directed drug delivery utilizing functionalized carbon nanotubes" done by us as one of the research highlight of the year (2011). The Unit/Centre conducts its research activity in collaboration with Dept. of Physics (Nodal Department), Dept. of Metallurgy, IT, BHU and Depts. of Medicine & Biochemistry, IMS, BHU.

Thrust Areas of research:

1. Producing Metallic Ceramic Glasses by Melt Quenching techniques and studying temporal evolution of their microstructures during controlled crystallization.
2. The hardness of NsM produced by above routes will be studied through nanoindentation technique to infer the length scales and study their transition regime employing ultra microhardness tester.
3. The evolution of structures and microstructures including bulk amorphous phases through AFM/STM/TEM techniques.
4. Synthesis of Biomaterials by Biomimetic route.
5. Optimization of Chemistry and matrix mediated materials on size and morphology of nanocrystals.

6. Synthesis of large aggregates of aligned Carbon Nanotubes (CNT's), formation of bulk shapes of carbon, rod, and cylinder consisting of CNT's.
7. Investigation of physical properties, e.g. electrical/electronic with particular reference to ballistic transport, field emission characteristics for the aligned aggregates and bulk objects consisting of CNT's.
8. Synthesis of nanoparticles: Nanostructured ZnO, TiO₂ (for improved photoelectro-chemical efficiency); composite nanoparticles SiO₂ /Au and other similar configurations.
9. Detection of 'hyperactive' platelets in blood from cases of stroke, acute myocardial infarction and diabetes mellitus, by use of magnet nanoparticles, coated with antibodies against activation-specific epitopes of PAC-1 and P-selectin.
10. Use of nanoparticles (gold particles, latex beads filled with quantum dots of specific sizes to produce spectral bar code) coated with specific DNA sequences to detect mutations in genetic disorders and carry out prenatal diagnosis.
11. Use of nanoparticles coated with specific antibodies to detect and / or isolate the proteins of interest from a cell lysate (alternative to western blotting and immunoprecipitation) for use in proteomic research.
12. Diagnosis of infectious diseases (leishmaniasis and malaria) by using nanoparticles.

Laboratory facilities available at the Centre:

Following laboratory facilities are available in the centre for research and training purposes:

- i. Scanning Electron Microscopy (SEM)
- ii. Atomic Force Microscopy (AFM)



2.1.5. Schools

2.1.5.1. Central Hindu Boys School

2.1.5.2. Central Hindu Girls School

2.1.5.3. Sri Ranveer Sanskrit Vidyalaya



2.1.5.1. CENTRAL HINDU BOYS SCHOOL

Central Hindu School (CHS, earlier name Collegiate School) was founded on July 7, 1898 in a hired building at Karan Ghanta, near the present townhall of the city, by Dr. Annie Besant in collaboration with several personalities of Varanasi, amidst recital of the pious Vedic Mantras.

Dr. Annie Besant guided and patronized this school until and 1911 later the school was taken up as the nucleus of BHU when the University was founded in 1916. When Kashi Naresh HE Prabhu Narayan Singh donated a big piece of land at Kamachha and got constructed the Kashi Naresh Hall along with some rooms, the school was shifted there from Karan Ghanta in March 1899. This school had been actively associated with India's freedom

struggle and national awakening. In 1975 '10+2' under C.B.S.E. was conducted and the first examination of class X was conducted in 1977 and the first examination of class XII was conducted in 1979 by C.B.S.E. Board. The school imparts education in Maths, Science, Social Science, health S.U.P.W. along with other subjects of arts, commerce, and science with vernaculars like Hindi, English and Urdu.

The grand and superbly furnished Tailang Library, established in 1912, is housed on a heritage building of the school. Approximately 30 thousand books are available here. The school provides education of Maths, Science, Social Science, Health and SUPW along with all the subjects of Arts stream, Commerce stream and Science stream at +2 level with

languages like Hindi, English and Urdu. For the practical knowledge of different subjects like physics, chemistry, psychology, maths, computer and agriculture there are magnificently furnished labs. There is a standard canteen for students, teachers and guests.

Two branches of Junior division N.C.C., one senior platoon and a junior wing in air force exist in the school. Admissions to classes VI, IX, and XI are done through School Entrance Test (SET).

The school has been divided in four houses i.e. Shivaji, Tagore, Ashok and Raman. Many competitions such as Debate, drawing and painting, elocution, antakshari, fancy dress, musical, vocal, instrumental, essay writing and quiz are organized. In addition, many sports activities and inter-house competitions in cricket, kabaddi, football, volleyball, high jump, long jump, table tennis are organized.

Every year the school organizes the prestigious competitions like Inter school Sir C.V. Raman Science Quiz, Ramanujan Mathematics Scholarship Competition, National Science Olympiad, National Maths Olympiad in which our students grab the best of positions. There are four branches of NCC to inculcate among the students the noble and intrinsic values like integrity, discipline, patriotism and social service. There are two branches of Junior Division Army NCC, one Senior Division of Army NCC and one Junior and Senior Wing of Air Force NCC. For multi dimensional and all round development of the students, varied kinds of cultural activities are organized in the school. For this the entire school has been divided in four houses viz. Shivaji, Tagore, Ashok and Raman. Many competitions such as debate, drawing and painting, elocution, antyakshari, fancy dress, musical (vocal and instrumental), essay writing, quiz, etc. are organized at House level/school level. In addition to this, many sports competitions like cricket, kabaddi, football, volleyball, high jump, long jump, table tennis, etc. are also organized. For indoor games and physical exercise, many new equipments have been installed in gymnasium hall.

For the enhancement in the level of knowledge and to make the students successful in every sphere

of life, series of lectures and talks of celebrities are often arranged in school. This year, Dr. Deependra Nath Bhattacharya, the former student of school and Professor of Mathematics in USA, delivered a lecture on the topic – 'Magic in Maths'. Prof. Anil Kumar Tripathi, Deptt. of Computer Science, B.H.U. delivered a lecture on the topic of 'Our Mind and Knowledge Power'. Hon'ble Prof. D.S. Rathore, former Vice-Chancellor, Himachal Agriculture University and Senior Member, Executive Council, B.H.U., also delivered a lecture in the school.

20% of helpless, poor and brilliant students from class VI to XII are awarded full free ship. Along with this, required financial help, school uniform and books are also given as a help through VSS.

Every year the school organizes the prestigious competitions like Inter School Sir C.V. Raman Science Quiz, Ramanujan Mathematics Scholarship Competition, National Science Olympiad, and National Maths Olympiad in which the CHSB students obtain best of positions.

Since 2006 the school has been publishing its annual magazine 'Srijan'. This magazine offers a pedestal for the development and exposure of the students.

Admissions to classes VI, IX and XI are done through School Entrance Test (SET). This examination is conducted by the University in the month of May every year. This year total 34626 candidates appeared in entrance examination for admission to the school. In the academic session 2010-2011 the total no. of students in the school was 2000.

Special Achievements of the Current Academic Session

- The result of CBSE examination of Class-X in 2010 has been cent per cent. According to new Grading System of CBSE, three students of class-X secured the maximum Grade Points (10). The number of students securing Grade Points between 9 to 10 was 45. The result of CBSE examination of class-XII in 2010 has been 96% which is 1% more than the previous year. Three students of the school secured a place in 0.1% merit list of CBSE this year. It has been a matter

of great prestige and honour for the school that every year many students qualify in the Engineering and Medical entrance examinations conducted nationwide in their very first attempt. In 2010, 08 students of class-XII created record by getting selected in their first attempt in IIT-JEE. Two students succeeded in CBSE PMT and CPMT in their first attempt. In addition to this, total 83 students have been selected in AIEEE and UPTU. The result of home examination of class VI, VII, VIII, IX and XI has been 82.6% this year.

- Sri Nivas Ramanujan Mathematics Contest is conducted every year at city level. Selected bright students from class VI, VII, VIII, IX and XI of different schools participate in this contest. Scholarship according to Merit is awarded to top five students of each class for one year. Total 2601 students from 32 school of the city participated in the contest in 2010. Of 25 awards, 18 awards were secured by the students of CHSB, which is 3 more than the last year.
- 14th Sishir Memorial Matheginious Competition was organized by DALIMS, Sigra, Varanasi. In this contest also, CHSB students came out with flying colours. This contest is organized in four groups – Senior, Sub-senior, Junior and Sub-junior. It is worth mentioning that first and second positions in all the three groups were bagged by CHSB students. The school conducts every year Sir C.V. Raman Science Quiz at city level to encourage and sharpen the scientific talent among students.
- 15th Sir C.V. Raman Science Quiz-2010 was held on December 11, 2010 in which teams of bright students from 09 prestigious schools of the city participated. Central Hindu Boys School stood first in this quiz contest.
- Total 17 students from class IX, X, XI and XII secured good ranks in 12th National Science Olympiad organized by Science Foundation, New Delhi at national level. The rankers were awarded with cash prize of Rs. 500 each, a memento and a certificate. For successfully conducting the NSO examination Dr. S.B. Pandey (PGT-Geography) was given the Best

IMO Incharge Award. He was given a Trophy and cash prize of Rs.3100.

• It is a matter of immense pride for the school that Mr. Rohit Kumar Singh, who has secured 93.8% marks in CBSE Examination – 2010 in class-XII (Science stream) and has got first position in the School, has been selected for 'Hindustan Pratibha Samman Scholarship-2010'. He was given the scholarship of Rs. 1 Lac by His Excellency Governor of U.P., Sri B.L. Joshi in a ceremony organized at Lucknow.

- Under Indian Oil Scholarship Scheme of ACE Consultants, New Delhi, two students from the school namely Ankur Agrawal and Devendra Kumar Rai, both from class-XII (Science stream), individually received the scholarship of Rs. 18000.
- Many students of the school gave an excellent performance in the Quiz contest based on health, education and environment organized by Society for Social Action and Research (SSAR). Performers of this contest were awarded with cash prize, memento and certificate in a ceremony organized in Paradkar Smriti Bhawan, Golghar, Varanasi.
- A seminar on the topic of "Higher Education and Sustainable Development: Emerging Challenges and Mahamana's Vision" was organized on 09.10.2010 in Sarga Hall of the school.
- The students also performed well in 'Hindi Nibandh Pratiyogita' organized by Rajbhasha Prakostha of BHU on the occasion of Hindi Diwas. Winners were given cash prize and certificate by Hon'ble Vice-Chancellor in a function at K.N. Udappa Auditorium, B.H.U.
- On the auspicious occasion of Gandhi Jayanti, BHU conducted Poetry Recitation and Drawing Competition. The students of CHSB were awarded cash prizes and certificates for their excellent performance by Hon'ble Vice-Chancellor in a function at Malviya Bhawan.
- Md. Mustaba Tahmeed and Md. Irfan Ansari received the annual scholarship of Rs.800/- and Rs. 700/-, respectively, from U.P. Urdu Academy, Lucknow, for securing highest marks in Urdu in CBSE Examination-2010 of Class-X.

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- Several students of the school were awarded during various academic and cultural events organised by different organisations, namely, Gayatri Teerth, Shantikunj, Haridwar, Rotary Club South, Varanasi, Bharat Vikas Parishad, Ganeshotsav Sewa Samiti, Gyan Pravah, Samne Ghat, Varanasi, Sharadotsav Sangh, Durgotsav Samiti, Bhelupur, Varanasi, Bharat Sewashram Sangh, Sigra, BHU Durgotsav Samiti, Durgotsav Sammilani, Pandey Haweli, Varanasi, National Geographic Channel, Champion Club, Lahurabir, Varanasi, Bharat Vikas Parishad, Kashi Prant, Varanasi Bal Vidyalaya Senior Secondary School, Prahlad Ghat, Varanasi, Literal Memorial Academy, Mahmoorganj, Varanasi to name a few. This year our school team was the winner in this competition. Samvit Rai of our school secured third prize in shot put throw in CBSE Athletic Cluster 2010.

Developments

- Many new constructions have been started for the development of school, which include:
- Construction of new double storied Craft Hall is near completion.
- Store Room and Teachers' Room beside Gymnasium Hall are also about to complete.
- The construction work of Students Hostel is in progress.
- With alumni support, the construction of main gate of school and room for security guards is near completion.
- Construction of Basket Ball Court is also about to complete.

Future Plans

- Construction of an open hall where students can organize prayer assembly and cultural activities during rains.
- Installation of flood lights in the campus.

2.1.5.2. CENTRAL HINDU GIRLS SCHOOL

Central Hindu Girls School (CHGS), an integral part of BHU, is one of the oldest premier institutions of girl's education in the city. It epitomizes the exalted vision and ideas of its founder Mrs. Annie Besant since its inception in 1904, as Kanya Vidyalaya. Set in the heart of the city, spread over a sprawling and beautiful campus, the institution is religiously performing its duty of synthesizing the ideals of Mahamana and Mrs. Besant of providing qualitative girl's education as well as preserving and spreading national culture and heritage. For the past over 100 years the school has been imbuing deep rooted values for individualistic growth of children to prepare them to be responsible, dutiful and honest citizens. The school is presently imparting education to the primary classes (Nursary to V) at Kolhua and secondary classes (VI to XII) at Kamachha. 1849 students are enrolled for the session 2010-11 out of which 619 students are studying in the primary section and 1230 girls are studying in the secondary and higher secondary section.

Courses of Study

The school is affiliated to CBSE since 1976 and thus conducts the AISSE and AISSCE Examinations. Education in Arts, Science and Commerce streams is available at the higher secondary level and subjects taught are Physics, Chemistry, Biology, Computer Science, Psychology, Geography, History, Political Science, Economics, Accounts, Business Studies, English Core and elective, Hindi Core and elective; Sanskrit Core and elective, optional painting, physical education, Music: Vocal and instrumental (Tabla, Sitar and Guitar). Laboratories are available for the study of Science, Home Science and Computer education in the school. The school has 10 buses to provide transport facility to the students.

Academic Achievements

- The result of the school during the session 2010-11 in AISSE and AISSCE has been 100% and 95.3% respectively.

- Computer Education is provided to the students from class I to class XII.
- School Entrance Test (SET) is a combined examination for class VI, IX and XI for both Central Hindu Boys' School and Central Hindu Girls' School. In SET 2010 conducted by Central Hindu Girls' School, 40070 candidates appeared.

Other Achievements

- For a complete and holistic development of the students, along with the academic programmes, various co-curricular activities, sports competitions, NCC, Guiding, Red Cross, First Aid and other cultural activities are conducted through out the year.
- The Kashi Hindu Vishvavidhyalaya Rajbhasha running shield 2010 was awarded to Central Hindu Girls' School for remarkable performance in Hindi language.
- Km. Vidushi Swaroop of class VIII secured third position and a cash prize of Rs.3000/- in a speech competition of state level on the topic 'Paryavaran Janjagran'.
- Students of the school participated in the National Standard Examination of Physics, Chemistry and Biology Olympiad competitions conducted by Indian Association of Physics and International Olympiad of Chemistry IOM. They also won medals.

School Activities:

1. Many programmes were organized on the 150 birth anniversary of Mahamana Pt. Madan Mohan Malviyaji.
2. On 25th December 2010 students participated in the flower exhibition at Malviya Bhawan and won prizes.
3. On Malviya Jayanti, BHU organized an interschool painting competition in which the students participated and won 2nd position in the class IV to VII group.

4. On the same occasion an Inter-School Bhajan Competition was held at Malviya Bhawan in which 3 students received first prize and 1 student received second prize.
5. On the 150 birth anniversary of Malviyaji, the school made a short film 'Mahamana Ki Antheen Yatra' based on his life and some important events in his life, enacted by the students of the school.
6. Radio Mirchi organized a music (film song) competition in which the students of C.H.G.S. bagged first, second and third positions and Km. Jyoti of class XII received a cash prize of Rs.1 Lac.
7. C.C.R.T. – Centre for Cultural Resource and Training organized a classical singing competition in which Apporva Tiwari of class IX received a scholarship of Rs.600/-.
8. Alumni Meet was held in B.H.U. on 25.12.10 in which the students presented a song on 'Environment and Ganga' at Swatantrata Bhawan.
9. On the occasion of Malviya Jayanti, B.H.U. organized an inter-school fancy dress competition in which Prasoon Rishabh of Primary section secured first position.
10. On 28.2.11 the school organized an exhibition on Mahamana's life on the occasion of 150 birth anniversary of Malviyaji.

Sports Activities:

1. Many sports competitions in the senior and junior group were held in the school on Children's Day.
2. Km. Sapana Gond of class VII won the first prize in Open District and Cluster Kabbaddi Meet.
3. Km. Sonali Chatterji and Km. Vineeta Singh

received prizes in a 'Womens year' District and Cluster Swimming Competition organized by Sports Dept. Lucknow.

4. Km. Nidhi Gupta received silver Medal in the District Tiaquondo Meet.
5. Km. Jagriti Singh of the school came second in the 400 meters race in the women's year cluster athletic meet.
6. C.B.S.E. organized and conducted Athletic Meet in D.A.V. Public School in Gaya, Bihar in which the students participated in various competitions and won prizes.
7. Km. Ayushi Chaurasia of class XI participated in the East Zone Skating Competition organized by CBSE at Kothari International School, Noida.
8. Sapana Gond of VII class participated in a National Athletic Meet, conducted by CBSE at Labour India Public School, Kottayam, Kerala.

Library Facilities:

The school has provided a well equipped library to the girls. There are 16000 books in the library.

Campus Development:

1. In the session 2010-11 a new library building was constructed and a new building is still under construction.
2. A new computer lab has been constructed in the primary section of the school.
3. Teachers' Room and an activity room for small children has been renovated in the primary section at Kolhua.

It is a matter of great pride that for the past over 100 years the school has been giving such values to the students that besides their own development they are brought-up as a responsible, dutiful and honest citizens of this country.



2.1.5.3. SRI RANVIR SANSKRIT VIDYALAYA

Ranvir Sanskrit Vidyalaya has a glorious past. Pt. Amba Das Shastri and Pt. Anant Ram Shastri, the revered teachers of great founder Mahamana Malaviya, had been its Adhyaksha. From Praveshika to Acharya level classes were run in this vidyalaya.

Originally founded in 1883 by ADAR-E-RIYASAT of Jammu for the preservation and propagation of Ancient Indian knowledge know as 'Jammu Sanskrit Pathshala' in the palacial building, "Jammu Kashmir House", it was later handed over to "Central Hindu Collegiate Society" with Dr. Annie Besant as its president. The premises of the Vidyalaya became thereafter Historical palace of Kashi Naresh of Banaras situated at Kamachha and the Vidyalaya was renamed as "Ranvir Sanskrit Vidyalaya" in the name of Father of erstwhile Sadar-e-Riyasat of Jammu "Maharaja Pratap Singh." In the process of establishment of BHU, "Central Hindu Colleeate Society' was amalgamated with newly established 'Banaras Hindu University Society'. As such, Ranvir Sanskrit Vidyalaya became a part and parcel of Banaras Hindu University, with its campus in historical Kashi Naresh Palace.

After the Faculty of Oriental Learning & Theology (presently Sanskrit Vidya Dharm Vigyan

Sankaya of BHU) came into existence, Madhyama and onward classes were started and only Praveshika classes (up to class VIII) remained in the Vidyalaya up to 1968. Consequently, based on the facts the Vidyalaya was functional as a Junior High School. Total teaching posts were provided in Ved, Jyotish, Vyakaran, Darshan, Sahitya, English and Science alongwith one position of Adhyaksha.

From July 1978, all the four parts of Madhyama classes of all subjects (Sahitya, Ved, Vyakaran, Jyotish & Dharshan) began functioning in R.S. Vidyalaya. The Vidyalaya offers Primary (Class I-V), Prathama (Class VI-VIII), Praveshika (Class IX& X) and Madhyama (Class XI & XII) courses. The School conducts teaching of modern subject courses like Science, Ayurveda, English, Hindi, Social Studies etc. applicable in Kendriya Vidyalaya along with Oriental Sanskrit Knowledge to fill the bridge between Ancient knowledge and modern scientific one. Opportunities still exist of developing Science and jyotish Labs.

The Vidyalaya provides free education to the students belonging to several parts of India, Nepal and other countries. Scholarships at the rate of Rs. 500/- were awarded to 200 students.