

COLLEGE ESTABLISHMENT

COLLEGE ESTABLISHED

Established in BS 2062 (2005 AD), with affiliation to Purbanchal University and registered with NEC



VISION

To be a world class *leading institution for human resource development* and expert services in the field of biomedical engineering and sciences.

MISSION

To be a *center of excellence* for human resource development and support *in the field of engineering and allied sciences* necessary for *health care system* under private sector *at affordable cost*.

OBJECTIVES

- Conduct undergraduate & graduate programs in Biomedical Engineering and sciences
- Provide modern facilities for conduction of courses.
- Establish linkages with National and International Organizations, Industry and Academia
- Offer expert services
- Conduct National and International seminars, workshops and conferences
- Provide support to students for job placement, and higher education and specialization.
- Conduct R&D Works

CBEAS-YESTERDAY

Initiated the college with a very noble cause in mind

Main shortcomings as we see it now :

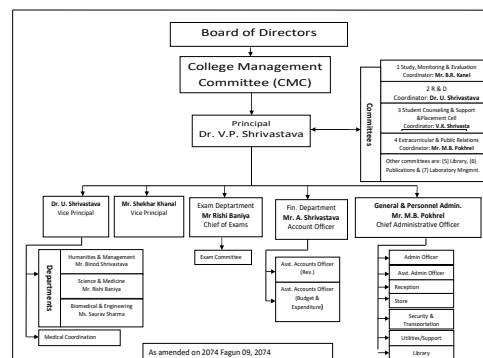
- Did all works haphazardly, no institutional arrangements
- No account of works: No records
- Single-handed decision making
- No formal Budgeting
- Teachers remuneration on ad hoc basis
- Lesser equipment in laboratories

CONTD..

- Laboratory manuals and SOPs not developed
- No Micro-syllabus
- No ranks or positions for faculty members
- No career development policy for teachers
- No feedback mechanism for teachers' performance
- Less interaction with guardians, employers and community
- No formal Alumni Association

CBEAS TODAY

ORGANIZATION



ACADEMIC PROGRAM

Bachelor Program (BE Biomedical Eng)

- Four Year Program
- Affiliation with Purbanchal University and Approval/ Permission from Nepal Engineering Council
- Annual permitted intake of 60
 - Min Qualification: 45% or more in +2 Science and Equivalent
- Scholarship
 - 10% as per University Directives
 - Topper Student in each class gets exemption from Monthly Fee
- 13 Batches enrolled to date
- 9 Batches Completed
 - Out of 400 Students 350 have already graduated.
- Master Program:

Waiting for University Approval for the last 5 years

TEACHING/LEARNING PROCESS

1. Lectures
2. Tutorials
3. Laboratories
4. Seminars
5. Home Assignments
6. Projects

PERFORMANCE & EVALUATION

1. Continuous Monitoring
2. Case Studies/Presentations
3. Internal Test
 - Exams (60%)
 - Attendance (15%)
 - Assignment (15%)
 - Class Works (10%)
 - Practical
 - Lab Performance
 - Lab attendance
 - Lab sheet/ report
 - Exam/Viva
4. Pass Rate:
 - Average of 8 batches: ~80%

ACADEMIC ACHIEVEMENTS

- Three students received prestigious Erasmus Mundus Award (scholarship to study in European Universities)
- Three students received prestigious Singa Award (scholarship to study in Singapore)
- Two girl students received Nepal Chhatra Vidya Padak
- ~45% of last 8 batches gone abroad for ME and PhD in various 17 countries.
- About 30 CBEAS Graduates obtained Direct PhD enrollment.
- To our knowledge 10 students have already completed PhD from various universities in USA, Ghent University, Belgium and Padova University Italy

CHHATRA VIDYA PADAK

(TO MS. NEELA PRAJAPATI)



PERFORMANCE (GRADUATES)

A 6-Point questionnaires sent to Academic Institutions. Responses from student supervisors showed that:

- All graduates doing exceptionally well
- Supervisors expressed their great satisfaction with the level of CBEAS Graduates knowledge and skills acquired at CBEAS.
- Supervisors are eager and willing to accept more CBEAS Graduates for further studies

PERFORMANCE (GRADUATES)

Mr. Jitesh Neupane, CBEAS Graduate of first batch, has already completed Phd. Recently from University of Gent Belgium under full scholarship.

The Book shown in this picture is his Thesis.



PERFORMANCE (GRADUATES)

Ms. Dina KC, CBEAS Graduate of the first batch, joined Nepal Armed Force Police in 2068. The AFP has this to say about Her

"She is an efficient employee and is rendering her services with the highest degree of responsibility with a professional attitude. Her strong work ethic and the zeal to work towards excellence have impressed our organization".

Ms Dina KC has completed Masters Degree in BME from GENT University of Belgium in accordance with our MOU with Ghent University.



Ms Dina KC, Inspector Nepal Armed Force Police, in UN Serra Leon Peace Mission

FACULTY

FACULTY

- Total: 28
Full Time: 21, Visiting: 15
- Highly Qualified
 - Phd.: 1
 - Masters: 23 (FT: 11, V: 12)
 - BE: 4
- & Highly Experienced

FACULTY

SN	Full Time Faculty and Instructors	SN	Visiting/ Part Time Faculty and Assistants
Full Time Faculty Members/Qualifications		Visiting Faculty/Qualifications	
1	Mr. Vishnu P. Shrivastava - Principal, Ph.D.	1	Mr. Bikash Shrestha, ME Biomedical
2	Dr. Uma Shrivastava - Vice Principal, MD/MSc	2	Mr. Achyuta N Mishra, ME, Electronics & Comm.
3	Mr. Siddhar Kharel - Vice Principal MS Biomed Engg	3	Mr. Ram Chandra Dhungana, MSc Math
4	Mr. Bhech Raj Karel - Coordinator, MSc Eng Com	4	Mr. Indra Bhandari, MSc Physics
5	Mr. Vinod Shrivastava, MA English	5	Mr. Jaya Prasad Karki, MSc Stat
6	Mr. Rishi Bhusal, MSc Microbiology, Exam Head	6	Mr. Rakesh Sharma, MBA
7	Mr. Sagar Shrestha, ME Control Systems	7	Mr. Ganesh Pokhrel MSc, Medical Technology
8	Mr. Mahesh Prasad MSc Biomedical	8	Mr. Shanta Lal Shrestha, MSc Medical Physics
9	Mr. Suman Sharma MSc Biomedical	9	Mr. Vinod Kumar Pandit, MSc Human Anatomy
10	Mr. Triyamb Kumar Bhattacharya ME, Etc	10	Mr. Rajan Shrestha, MSc, Histology
11	Mr. Anshu Lamichhane, BE Biomedical	11	Dr. Sujit Singh, Master in Physiotherapy
12	Mr. Dipesh Sapkota (BE Biomedical)	12	Mr. Nishant Acharya, ME, Etc
13	Mr. Raj Kumar Shrestha, BE Mechanical	13	Mr. Suman Kumar Bhagat, MPhil, Sociology
14	Mr. Lakshya Devkota BE Mechanical	Lab Assistants (Part Time)	
15	Mr. Pawan Bhushan, MTech Biomed Eng (On leave)	1	Mr. Rohit Mahajan [1], SLC
16	Mr. Pawan K. Karki, ME, MBA	2	Mr. Jaya Ram Khajju [3] Msc Env. Sciences
Technical Instructor/Assistants			
1	Mr. Anur V. Shrivastava, AME/BCA		
2	Mr. Abhishek Shrivastava, Diploma in Software		
3	Mr. Sangeet Prasadgiri +2 Management		
4	Mr. Umesh Thapa +2 Management		
5	Mr. Yagnesh Mahajan +2 Management		

FACULTY DEVELOPMENT

CBEAS undertakes following activities

- Orientation on Teaching for new comers
- Conduction of specific short trainings by College
- Sponsoring Participation in short Courses, conferences and seminars
 - At Full Expenses in National and international (India only)
 - Registration in International conferences abroad
- Education Leave
 - With pay for short programs
 - Without pay for long programs
 - Internal Training

COLLEGE FACILITIES

PREMISES

College operates in a leased space with

- Land Area: 3-4-2-3 (R-A-P-D)
- Building and sheds with over 19,000 square feet.

Built up area consists of

- One 4- story Building of 18,030 square feet
- One Workshop
- A basket ball Ground
- A Table Tennis Court
- One Motorbike Shed
- One Shed for Standby 25 KVA Diesel Generator

CLASS ROOMS

- **3 Seminar Halls** with ceiling mounted Multimedia facilities (LCD Projectors and audio systems) with capacity of 60 participants each
- **2 Lecture Rooms** with White Boards (one with audio system) with 60 people capacity.
- **2 Tutorial Rooms**
- **1 Drawing Hall**

Two multimedia projectors, Two O/H Projectors and Two sound systems available for CR separately

LABORATORIES

General Purpose Labs (6)

Physics, Chemistry, Computer (2 labs), E&E, Mechanical W/S with capacity of 27 students each

Specialized Labs (5)

Biomedical, Histology, Biology and Tissue Culture, X-Ray & CT, Universal Testing Machine and Contact Angle Goniometer for material testing.

Project Lab (2)

For Student Project and Research

LIBRARY & RESOURCE CENTER

➤ Library

- Student provided 6 Text books at one time for 15 days and renewed thereafter on request.
- Over 5,000 Books
- National and International Journals
- Access to WHO sponsored online Library Database "HINARI" with over 10,000 journals.
- Reading Room to accommodate upto 25 people.
- Computer
- Photocopy Machine
- Accessible during 9:30-17:00 hrs extended on student request

➤ Two Librarians

OTHER FACILITIES

Communication:

- Telephone Lines:2, One 16-line PABX,
- 2MBPS Internet, WIFI Routers-3

Back up Power Supply: One 25 KVA Diesel

Genset and one 5KVA Genset

Vehicles: 3 (one bus, and one Van, one motorbike)

Canteen: with sitting capacity of 40

Sport: Basket Ball, TableTennis Courts

R&D AND PROJECT WORKS

Case Studies

Project Works

- During studies, student teams are assigned project works
- Each Final Year Batch conduct **Research Based Project works** in 11 Teams.
20 Projects till date are of the nature of Fundamental Research

ACADEMIC RESEARCH AND COLLABORATION

ACADEMIC & RESEARCH COLLABORATION

MOU for Collaboration

CBEAS has signed MOU with 6 Institutions for student support and research:

1. Nepal Orthopedic hospital,
2. Star hospital,
3. National Kidney center
4. Institution of Electronics and Telecommunication Engineers, Nepal Chapter
5. Annapurna Neurological Institute , Kathmandu
6. Ghent University of Belgium
7. University of Texas at Arlington (USA)

CBEAS project based collaboration with
TUTH, KU, UGC, IITs (India)

INTERNATIONAL CONFERENCES

CBEAS conducted two major International Conferences

- **MMDRM -2008:** Medical Materials, Devices and Regenerative Medicine inaugurated by First President of Republic of Nepal Rt. Hon. Dr. Ram Varan Yadav held between Nov. 23-25, 2008 in Park Village Hotel, Kathmandu
- **MMDRM -2014:** Medical Materials, Devices and Regenerative Medicine in 2014 inaugurated by Vice President Rt. Hon. Paramananda Jha held between Jan 11-13, 2014 at Radisson Hotel

(Both of the conferences were attended by over 100 eminent scientists and scholars from over 15 countries and about 200 from Nepal and were GRAND SUCCESSES)

- One day International Seminar at Alfa House, Baneshwar on "Recent Developments in Biomedical Engineering (Jul 3, 2017)
- MMDRM-2019 (Finalized)

MMDRM-2008

PARK VILLAGE RESORT, BUDHANILKANTHA



MMDRM-2014

HOTEL RADISSON, LAZIMPAT



ONE DAY INTERNATIONAL SEMINAR



PUBLICATONS

College Information

College regularly publishes College Prospectus, Brochures, Calendars, for students and their guardians

Technical Journals

Biomed-1 Aug 2006
Biomed-2 Oct 2007
Biomed-3 Apr 2013
Biomed-4 July 2016

OTHER ACTIVITIES

Corporate Social Responsibility

- Blood Donations organized by student council and funded by college
- Contributions to flood victims of Koshi and Darchula
- Donations of Computers to Taplejung School
- Contribution to the Prime minister's Fund for Earth Quake Relief
- Logistic Support to Health Camp organized by Puja Pratisthan Kathmandu
- Logistic or/and Medical Consultancy Support to Earthquake Victims in different districts around Kathmandu.

EXTRA CURRICULAR ACTIVITIES

Annual Functions:

- Welcoming New Students and giving farewell to pass outs
- Saraswati Puja - Annually

Quiz Contests

Sport Activities:

- Sport Competition during Sport Weeks

ACHIEVEMENTS IN EXTRA-CURRICULAR ACTIVITIES

- Bagged 1st prize during two consecutive years in paper presentation competition in LOCUS (Organized by IOE, Pulchowk)
- Bagged Young Scientist best paper award in an International Conference in IIT, Chennai, India
- Bagged First prize in Debate competition organized by KU Bio- Tech Club on "Should we genetically modify organism?" on the occasion of world DNA day.
- Bagged First prize in Poster Presentation competition during Young Scientists Summit organized by Nepal Polymer Institute.

ANNUAL FUNCTION



Implementation of PRT Priority Recommendations (Opportunities)

REC. 1: FACULTY DESIGNATION AND CAREER DEVELOPMENT

- शिक्षकको पदपूर्ती तथा पदोन्नति नियमावली-२०७३ approved and implemented: Designation letters issued.
 - College has assigned designations for faculty members e.g. Professor, Associate Professor, Assistant Professor etc. as per Faculty Designation and Appointment Regulation 2073.
- Career Development Plan of Faculty was decided by CMC on 2072 Chaitra 15 and is under implementation
 - Under this plan faculty are supported to participate in conferences, short courses, workshops and seminars

REC 2: FACULTY DEVELOPMENT & RETENTION STRATEGY

- Steps for Retention of Core Faculty approved by CMC on Jeshtha 15, 2073
- "Guidelines for participation of teachers in national and international conferences & seminars 2072" have been endorsed
- Seven (7) Faculty members participated in International Seminar on BiTERM-2016 held in IIT ND in 15-17 April, 2016.
- One Faculty Member participated in International Conference on "Application of Mathematics to Non-linear Sciences" to be held in May 26-27, 2016, in Kathmandu

REC 3: BALANCE OF FACULTY MEMBERS

- Engagement of Faculty Members consistent with NEC Guidelines.
- Seven out of fifteen Full Time Faculty and two tutors have Biomedical background.

REC.4:FEEDBACK SYSTEM

- Questionnaire to Collect Student feedback on Teacher's performance published on College website.
- Regular monitoring of students learning activities :
 - class observation,
 - student-teacher interactions,
 - evaluation by two internal tests and assignments
 - database of students' performance maintained in examination section

CONTD..

- Teachers' Diaries prepared-to be issued to individual teachers at the start of semester
- Annual meetings with employers, local community and parents fixed
 - Interactions among Faculty and Parents is scheduled for last week of Bhadra Each Year (placed in website).
 - Interaction with Community Leaders and Employers to be held on First week of Ashwin (placed in website).
- College has already started to keep records of activities

REC 5: LABORATORY UPGRADATION

- Cell Counter has been added in biomedical laboratory.
- Bio-chemistry analyzer has been added for demonstration.
- New Ventilator has been added.
- SOPs and Lab Manuals prepared for all 14 laboratories.
- List of Practicals with tentative dates have been published

LIBRARY UPGRADATION

- Reference Books added.
- e-Books added to the library.
- Efforts are underway to obtain and install EMIS software.

IMPLEMENTATION OF GENERAL RECOMMENDATIONS

- Rules have been formulated for teacher's participation in workshop, conferences and seminars
- Short term trainings being conducted
- Faculty involvement in different activities encouraged
- Departments being strengthened
- Seminars/workshops/conferences being organized
- Micro-syllabus posted in the web site
- Counseling for final year students for employment initiated
- Biomed Nepal- 4 published
- Alumni of CBEAS formed
- Other activities under progress for further enhancement

MAJOR ACHIEVEMENTS..

- Awards and felicitations from the University & Nepal Government
- Prestige in academia & society
- Credibility in the market
- Increased student's flow
- Enhanced International relations

BIGGEST CHALLENGE

- To Maintain and Enhance overall Quality

WAY FORWARD

- ❖ Start ME Program in 2018
- ❖ Building Own Premises by 2020
- ❖ Upgrading Facilities in Own Premises
 - ❖ Upgrade Laboratories
 - ❖ Add new facilities for teaching learning
- ❖ Enlarge International Collaboration on R&D and Study

SELF ASSESMENT TEAM

- Mr. Bhesh Raj Kanel - Coordinator
- Dr. Uma Shrivastava
- Mr. Binod Srivastav
- Mr. Shekhar Khanal
- Mr. Murari Pokharel
- Mr. Anil Shrivastav