
STRENGTHENING PHYSICAL INFRASTRUCTURE

FACULTY OF ARTS & HUMANITIES

DEPARTMENT OF ARCHAEOLOGY

- **Development projects (Laboratories, Libraries, etc.)**
 - Provision of furniture and conference table/ chairs in the library

DEPARTMENT OF FRENCH LANGUAGE AND LITERATURE

- **Research Equipment :**
 - 4 computers, multimedia set, DVD & audio-video system

PAKISTAN STUDY CENTRE

- **Development projects (Laboratories, Libraries, etc.)**
 - The Centre's Library contains a good collection of books, journals, reports, newspapers covering a wide-range of themes related to history, politics, economy, geography, languages, culture and literature of Pakistan. There is also a sufficient collection on the South Asia, Central Asia and the Middle East. New books are being added on regular basis. The library receives more than 20 research journals covering a vast field of subjects particularly Social Sciences. The Library is also acquiring English and Urdu local newspapers.
- **Research Equipment**
 - The computer lab of the Centre is equipped with 10 latest computers for research students. Five more computers have been added to facilitate the faculty members to carry out research projects.
- **Construction projects**
 - The construction of a new hall for library started in 2009-10. Furnishing of the new hall is in progress.

UNIVERSITY COLLEGE OF ART & DESIGN

- **Strengthening Physical Infrastructure**
 - Placed New Etching Press for Graphic Art Lab.
 - New Computers.
 - Installation of Multimedia in the class rooms.
 - Photocopy machine for library
- **Development projects (Laboratories, Libraries, etc):**
 - Computer Lab for Graphic Design Students.
 - Furnished the Library environment according to the desired standards.
 - Automation of Library catalogue
 - Established Online Public Access Catalogue (OPAC)
 - College Digital Library (in progress)

- Established College Digital Archive (in progress)
- Established WiFi facility in Library
- Established Separate Reference Section
- 4 computers for HEC databases
- **Construction Projects:**
 - Keeping in mind the character of the old building of the Allama Iqbal Campus.
 - The College constructed the Pearl Courtyard .
 - Gosh-i-Bahzad-o-Mani which are now being used as student spaces, open air classes, display/exhibition areas for College events/functions etc.
 - Constructed 4 new wash rooms for students.
 - Decorated the wall of the Pearl/Courtyard with hand impressions of the alumni famous artists/designers of the College of Art & Design.

GUJRANWALA CAMPUS

- **Development projects**
 - Laboratories

There are three computer laboratories equipped with multimedia projectors and 129 computers to assist the students in their research work and other general purposes.
 - Library

The PUGC Library has 1500 books and 20 magazines and journals of national and international repute. To facilitate the research activities, PUGC library has an access to the full text research journals through HEC Digital Library (<http://www.digitallibrary.edu.pk/punjabuni.html>).
 - A PUGC Library Bulletin is also compiled on monthly basis.
- **Research Equipment:**
 - All the classrooms, computer laboratories, library and faculty offices are equipped with computers having internet facility to promote research activities.
- **Construction Projects:**
 - The ground floor of extension of the PUGC was inaugurated by the worthy Vice-Chancellor on 25th November, 2010. The finishing work of its first floor is in progress.

FACULTY OF BEHAVIOURAL & SOCIAL SCIENCES

DEPARTMENT OF SOCIAL WORK

- Department of Social Work established its own Computer Lab in the said year with 6 Computers available for students along with the facility of Internet, Printer, Scanner etc.
- Library of the Department added thirty new books on different subjects.

- **Construction projects**
 - Extension of departmental building

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

- **Development projects (Laboratories, Libraries, etc.)**
 - DLIS extended its computer lab with eight work stations.

INSTITUTE OF ADMINISTRATIVE SCIENCES

With the objective of making students well versed in usage of information technology and to enhance their computer literacy skills, IAS has well equipped computer laboratories which cover an area of 4800 square feet. IAS has two well equipped computer laboratories, as we belong to the management sciences so we do not have any scientific laboratories. There are two separate computer laboratories on the upper story of the newly constructed IAS building, one for graduate programs (LAB Gr.) and the other for undergraduate programs (LAB U.Gr.). Both these labs are equipped with 250 computers with contemporary softwares like MS Office, SPSS, Corel Draw, Adobe etc. A strong antivirus software named NOD 32 is installed to prevent viruses from attacking the systems. Instructions/guidelines for the users regarding safety regulations or alike have been displayed on the lab notice boards. In addition, we equip our students with the usage of IT by offering multiple courses throughout their stay at IAS. In addition, we have installed CMS for annual academic activities and our web portal is in the process of making.

INSTITUTE OF BUSINESS ADMINISTRATION (IBA)

IBA Computer Labs

- There are two fully equipped and modern computer labs for the students at IBA, having 170 state-of-the-art computers. These labs are equipped with multimedia projectors and sound systems.

IBA Library

Sr. No.	Description	Quantity
1	Total books available as on 30-09-2010	19,000
2	New books added during the reporting period	600
3	Total book as on September 30, 2011	19,600

In addition to above books, IBA library is also regularly subscribing for 3 foreign and 8 local famous journals.

FACULTY OF EDUCATION

DEPARTMENT OF SPECIAL EDUCATION

- **Development projects (Laboratories, Libraries, etc.):**
 - Department established one computer lab and one Audiology Lab with latest technology used for hearing assessment.

- Department extend its computer lab with work stations.
- Established Audiology lab with latest equipment used to diagnose hearing level.

FACULTY OF ENGINEERING & TECHNOLOGY

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Development projects**
 - The institute receives budget for its development projects from University of the Punjab and HEC. University of the Punjab approved about Rs. 2.0 million for building upgradation and library facilities. DAAD funded a project of purchase of Automatic Density meter worth Euros 10,000.
- **Research Equipments**
 - The institute has state of the art research labs. Upgradation of these labs is a continuous process recently the institute has purchased various equipments through various research projects:
- **Construction projects**
 - Up gradation of Examinations Cell is completed through departmental resources.
 - Construction of female student's common room and prayer hall was completed.
 - The faculty offices are upgraded.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Development projects** (Laboratories, Libraries, etc.)
 - Projects are in process to equip Laboratories as per requirements of Pakistan Engineering Council.
 - Recent Vice Chancellor of Punjab University has allocated Rs. 6 million to update Industrial Engineering laboratories from his special education funds.

DEPARTMENT OF TEXTILE ENGINEERING & TECHNOLOGY

- **Construction projects**

The department utilized the HEC grant of Rs.24.5 millions for infrastructure development in Textile Engineering & Technology. An amount of Rs.9.5 millions has been used for civil work of the building (14000 sqft area), however it has yet to be finished. The equipments (20 in numbers) worth of Rs.14.00 millions & the books (250 in numbers) worth of Rs.2.00 millions were purchased. Moreover to overcome shortage of funds the proposal for funding from Export Development Fund of Government of Pakistan was forwarded through Ministry of Textile Industry. This funding is in advanced stage of approval.

COLLEGE OF ENGINEERING & EMERGING TECHNOLOGY

- **Development projects**

A sum of Rs. 0.3 million is being spending annually to enrich the library books and allied facilities. In addition to this, a sum of Rs. 7.5 million have been utilized by the Department of Metallurgy and Materials Engineering, sanctioned by the University for the up gradation of existing labs and

establishing new labs. Similarly Department of Polymer Engineering is working on three development projects related to the labs.

- **Research Equipments**

During the current year the following major equipments in addition to existing equipments such as Gamry Corrosion Testing equipment, coating thickness meter, sand blasting, heat treatment furnaces metallography equipment, foundry related equipments, mechanical testing etc., in the Department of Metallurgy and Materials Engineering have been purchased.

- Optical Microscope with image analysis software
- Micro-Vickers hardness tester
- Automatic digital Rockwell hardness tester
- Welding and NDT equipments
- Automatic metallographic equipments.

Department of Polymer Engineering have equipment related to the state of the art equipments covering the fields of thermal, spectroscopy, paint, membrane, mechanical, chromatography, processing, visco elasticity and rheology. Synthesis platform has facilities from lab scale synthesis to pilot plant scale production. Similarly Department of Electrical Engineering has well established labs for the robotics, wireless communications, data structure and analysis etc.

- **Construction projects**

- A request for construction of new lab of “Welding Engineering” has been submitted to the university to strengthen the technological infrastructure.
- A new block is constructed comprising of three laboratories and office. This project being the part of research project and construction phase is not only completed but instruments are also installed and labs are functional.

CENTRE FOR COAL TECHNOLOGY

- **Development Projects (Laboratories, Libraries, etc.)**
 - Sent proposals for providing funds for construction of phase-II of the building and purchase of Research Equipment under Public Sector Development Programme (PSDP) but these funds could not be provided.

FACULTY OF LIFE SCIENCES

DEPARTMENT OF APPLIED PSYCHOLOGY

- **Development projects (Laboratories, Libraries, etc.)**
 - Department has renovated animal laboratory recently in which different experiments are performed on animal behavior such as conditioning and biological basis of behavior. Each year new psychological tests and scales are purchased and added to the testing lab.

- **Research Equipment**

- Computers are added to MPhil and PhD labs, and also data analysis software's are installed in computers for research purposes.

DEPARTMENT OF BOTANY

- **Development projects (Laboratories, Libraries, etc.)**

- Computer Lab:
Forty new computers have been provided by the University of the Punjab, Lahore to upgrade the computer lab.
- Library:
Nineteen new books have been added this year.

- **Research Equipment:**

- Kjeldahl's Apparatus (Env. Biotech. Lab)

- **Construction projects**

- Two wire houses for pot experiments in the department were renovated from grant provided by University of the Punjab, Lahore.
- A lab has been constructed for plant tissue culture work in the Botanical Garden, Department of Botany, University of the Punjab, Lahore.

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

- **Development projects (Laboratories, Libraries, etc.)**

- Established prefabricated BSL3 Laboratory in the department
- Established experimental station (Plant growth tunnels and related plant growth facility etc).
- Established new lawns in the department
- Anaerobic culture facility being established
- Cell line culture facility being established

- **Research Equipment**

- Fermenter
- Rotary Evaporator
- Atomic absorber
- Real time PCR
- DNA Spectrometer
- Metallurgic Microscope
- Sonication bath
- Cool cabinet

- **Construction Projects**

- Fencing around the department
- Construction of Genelab in department

DEPARTMENT OF SPORTS SCIENCES & PHYSICAL EDUCATION

- **Development projects (Laboratories, Libraries, etc.)**

- Proposals submitted & under process

- **Construction projects**

- Construction of New Building of Department of Sports Sciences & Physical Education at New Campus is in progress.

DEPARTMENT OF ZOOLOGY

- **Development projects (Laboratories, Libraries, etc.)**

- At present the Department of Zoology has a clear vision to extend its existing research facilities. These are following main components in this respect which are given as under:
 - Strengthening and up-gradation of existing facilities in Zoology Department.
 - Over all improvement and renovation of the department.
 - To establish field research laboratory at Fish Research Farm University of the Punjab for research students of the department.
 - Establishment of Entomology laboratory for studying Biodiversity and Ecology of insects and spiders.
 - To establish Animal house facilities in the department of zoology for rearing of experimental animals.

- **Research Equipment**

Sr. No.	Description of equipment	Quantity
1.	All glass distillation apparatus Model # Im-100 Irmeca, Germany	1
2.	Microtome Rotary, Model # MRS Cat No. 213 Niffon Optical Japan	1
3.	Tissue Floating water bath Made in Germany, SR 8869/10	1
4.	Automatic Voltage Stabilizer 5000 watt Input 105-260 General Electric Company	1
5.	Prof. Dr. Javed Iqbal Qazi: Digital camera 10 MP with all attachments Sony. Sr. No. 6766162	1
6.	Dr. Zafar Iqbal: Incubator digital latest Model INB-Series, Germany	1
7.	Dr. Najma Shaheen: Balanace Electronics, Shimadzu, Japan.	1

- **Construction projects**

- Future Plans:
 - For Animal House, Computer Lab and Departmental Museum, PC-I has been submitted to the University for funding.

- For permanent faculty development two of the faculty members are planning to leave soon for Post-Doc Fellowship. More faculty members (on contract/part time) are being inducted.
- Computer Lab Strengthening, Animal House Establishment, Natural History Museum Development.

CENTRE FOR CLINICAL PSYCHOLOGY

- **Development projects**

- Strengthening of Academic Research and Clinical Services at Centre for Clinical Psychology, University of the Punjab, Lahore.

- **Construction projects**

- The Project was approved by the DDWP of Higher Education Commission in its meeting held on 18th May, 2006. The ground breaking ceremony took place on 6th June, 2007 by the Vice-Chancellor, Punjab University, Lahore. The civil work for “Strengthening of Academic Research and Clinical Services” at Centre for Clinical Psychology, University of the Punjab, Lahore was completed and finishing work is in process. The project will be completed in June, 2012.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

- **Development projects (Laboratories, Libraries, etc.)**

Strengthening of Centre of Excellence in Molecular Biology	Higher Education Commission
Establishment of National Centre for Stem Cell Research and Regenerative Medicine	Higher Education Commission

- **Research Equipment**

- List of Equipment

S.#	Name of Equipment
1	Confocal Microscope (Fluorescent Microscope Unit With UV And Near Infrared Laser, 5 Detector, Fully Motorized Equipped With 3 Laser Port Systems)
2	DNA Synthesizer (High Throughput For High Quality Oligos Production And Low Reagent Consumption) plate replicate
3	DNA/RNA Microspotter
4	Micromanipulator
5	Microscope With Laser Dissection System (Equipped with Inverted Microscope and Laser for Micro Dissection of Animal and Plant Tissue)
6	Fast Protein Liquid Chromatography with large size columns and accessories
7	2D-Gel Electrophoresis System and accessories
8	Liquid Handling System
9	Refrigerated Coolant Circulation System
10	Cell Harvesting System
11	Cell Breaking devices
12	Fluorescent Activated Cell Sorter (FACS)
13	CO2 Incubators
14	Human Cell Culture Hoods

15	Electroelutor Column/Injector
16	Medium speed centrifuges
17	Bench centrifuges
18	Control Temperature Vertical Station

SCHOOL OF BIOLOGICAL SCIENCES

- **Development projects (Laboratories, Libraries, etc.)**

- The infrastructure of School is distributed in two double storied buildings, adjacent to each other, which are provided with all fixtures and facilities of any modern Molecular Biology and Analytical Chemistry labs. Presently there are 14 functional and fully furnished laboratories with the necessary equipment for research work in the first building. The second building, which is replica of the first building, houses some specialized laboratories/facilities, for example, Animal Cell Culture, Radioactivity, Cold Room, HPLC, Proteomics, Atomic Absorption, Maldi-Tof Mass Spectrometry, Human Growth Hormone Laboratory, Forensic Diagnostic and Research Laboratory etc, besides a small Lecture Hall. Another small building just behind the new block houses a Small Animal House, an Insectary and a Green House. Another wing with 14000 sq.feet plinth area is being planned. This would enable the School to expand its existing research activities. The School had plans to embark upon an extensive formal practical training programme in Molecular Biology for researchers, faculty members and post-graduate students of this university, other universities in and outside the town in Punjab and other provinces of Pakistan, but unfortunately because of problem of transfer of funds, this programme could not be undertaken with full force and enthusiasm. School is making rapid progress and is heading towards its objectives with the concerted efforts of younger faculty members, the senior faculty members as its Directors and the able guidance of a worlds renowned Director General.

- **Research Equipment**

- List of Equipments Purchased -2010-11

Sr.No	Name of Equipment	Model/Make	Qty	Date of Purchase
1.	Pipette Man	Gilson France	09sets	23-06-10
2.	UPS 10KVA	Infosec France	03Nos.	25-06-10
3.	Bench Top Centrifuge	Micro200 Hettich Germany	02Nos	15-07-10
4.	Micro Centrifuge	EBA20 Hettich Germany	02Nos.	15-07-10
5.	Power Supply	Cleaver Scientific UK	06Nos.	19-07-10
6.	Biophotometer Plus	Eppendorof Germany	02Nos.	06-08-10
7	Weight Balance	China	01No.	29-08-10
8	Digital Balance	SSPAN	02Nos.	17-09-10
9	Vacuum Jug	Japan	01No.	18-04-11
10	Horizontal Gel Electrophoresis	Cleaver Scientific UK	04Nos.	13-05-11
11	Power Supply	DYY-6C China	01No.	14-06-11
12	Electrophoresis System	DYCZ-30C China	03Nos.	14-06-11

- **Construction projects**

- The Ph.D. boy's hostel and girl's hostel are under construction.

FACULTY OF PHARMACY**COLLEGE OF PHARMACY**

- **Development projects (Laboratories, Libraries, etc.)**

- Sufficient and diversity of the relevant books are available in the library of University College of Pharmacy. Highly qualified staff has been appointed to run the library of the College. The development of the Laboratories in the College is an ongoing process. The library has been equipped according to the current needs.

- **Research Equipments**

- Almost all the required research equipments are available in the various Laboratories of the College of Pharmacy to conduct the research in the different areas of Pharmacy disciplines.

- **Construction projects**

- This year due to the shortage of space new rooms have been established to overcome the demands of students taking Pharmacy education in the University College of Pharmacy.

FACULTY OF SCIENCES**DEPARTMENT OF MATHEMATICS**

- **Development projects (Laboratories, Libraries, etc.)**

- Three Computer Labs.
- One Library

- **Research Equipment**

- 108 Computers, 03 Multimedia

DEPARTMENT OF PHYSICS

- **Development projects (Laboratories, Libraries, etc.)**

- The existing Computer Lab has been significantly updated by adding new & latest computers.
- The Library of the Department has been computerized and now students can avail computer facilities in the Library.
- A separate computer lab for the research scholars is also established in the Department.

- **Research Equipment**

- The following research equipment/Labs are available in the Department for the M.Phil/ PhD research work.
- X-RD Lab, Computer Lab, FTIR Lab

DEPARTMENT OF SPACE SCIENCE

- **Development projects (Laboratories, Libraries, etc.)**

- 30 books were added in the library of Space Science department.

CENTRE OF EXCELLENCE IN SOLID STATE PHYSICS

The following equipment have been added to the laboratories during the report period:

- Multiple output power supply
- 100MHz digital storage oscilloscope
- Speed of light kit
- He-Ne LASER 0.5mW
- Magnetic stirrer hot plate
- Weighing balance with capacity 0.001 to 220 g

Students' Activities/ Events

- The students organized social gatherings on frequent basis during this period. These include the welcome party for the newcomers, Eid-Milan parties and the celebration of Eid Melad-ul-Nabi.

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH (CIMR)

- **Development projects (Laboratories, Libraries, etc.)**
 - A new computer lab with 20 computers and a server; and a lab for geology, are under construction.
- **Research Equipment**
 - New equipments such as air particulate counter, turbidity meter, multi icon meter, test & monitor indoor quality, dissolve oxygen meter kit, sound meter with graphic display, ultra violet light meter, computers, digital balance, sieve set, shaker, oven , air blower, etc. have been added recently to research laboratory.
- **Construction projects**
 - New building of CIMR is near to complete.

CENTER FOR UNDERGRADUATE STUDIES

- **Development Projects**
 - Up gradation of Zoology Laboratory
 - Development of internal and external green belts and lawns
 - Installation of multimedia projectors in two class rooms
- **Research Equipment**
 - Installation of previously purchased equipments like spectrophotometers and flame photometers in instrument laboratory

INSTITUTE OF CHEMISTRY

- **Strengthening Physical Infrastructure:**
 - Last years different equipments were purchased in order to meet the requirements of the state of the art laboratories. Like every, in last year books related to literature and chemistry has been purchased. No considerable construction projects was launched in the last year

INSTITUTE OF GEOLOGY

The Institute of Geology has added following equipments in the Laboratories of Worth Rs. 6.156 million.

- Polarizing Microscope for Research in the field of Sedimentology
- Grinding and Polishing Machine
- Precision Thin Section Cutting and Grinding Machine
- Automatic Sample Grinding / Lapping
- X-Ray Tube for XRD Unit (Bruker AXS-Germany)
- Electronic Console Box of XRF Model S4 Pioneer – Bruker AXS, Germany.

The Institute of Geology has established a state-of-the-art “GEOSCIES” Modeling laboratory for the students of M.Phil / PhD. programs in the fields of Geophysics / Petroleum Geology and Geomatics and included following apparatus.

- Inclusion of 08 Core-I 7 and Core I 3 Computer in the GIS laboratory of worth Rs. 0.61 million.
- Installation of Server in the GEOSCIES modeling laboratory of worth Rs. 0.29 million for the students of M.Phil / PhD programs.
- The Institute has also upgraded its Library by including of 214 References Books in the Library of Rs. 0.3 million

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

• Development projects (Laboratories, Libraries, etc.)

- Laboratories:
 - Analytical Laboratory: A project of Rs. 125,000 Completed on Dec 2010 funded by University of the Punjab.
 - Solid Waste Laboratory
 - Biology Laboratory
- Library:

Total New Number of books in CEES Library is 113 in that duration.

• Research Equipment

- For Analytical Laboratory: Hot plate, orbital Shaker, PH meter and filtration
- Assembly.
- For Solid Waste Laboratory: Muffle Furnace, ovens, glass wax, balance and chopper grinder etc.
- For Biology Laboratory: Hot Plate with magnetic spirer, Incubator for microbial growth, Laminar flow for microbial culturing, Weighing balance, Microscope, Centrifuge Machine and Orbital Shaker.

PUNJAB UNIVERSITY COLLEGE OF INFORMATION & TECHNOLOGY

• Development projects (Laboratories, Libraries, etc.)

- Electronics Lab
- Open Source and E-Lancing Lab (53 Computers)
- Remote Sensing & GIS Lab (53 Computers)

- **Research Equipment**

- The following research equipment was purchased for the said tenure.

Sr. No.	Product
1	Plotter
2	Apple Mack
3	Scanner / Electric Items

- **Construction projects**

- Two Academic Blocks
- GIS Center (New Campus) Completed
- IT Center under construction expected to be completed by May 30, 2012.
- HRD building in plans, expected to be completed by June 2013.
- Academic block with 12, state of the art Lecture Theater at old campus expected to be completed by June 2013.

COLLEGE OF STATISTICAL AND ACTUARIAL SCIENCES

- **Development projects (Laboratories, Libraries, etc.)**

- The existing Computer Lab. is significantly updated by adding new & latest computers;
- The classrooms are equipped with audio visual and projector facilities;
- The Library of the College was computerized and computer facilities are also available in the Library;
- A separate computer lab for the research scholars is also established in the College.

- **Research Equipment**

- Construction projects
 - After launching of five masters level, one BS, one M.Phil and PhD programs, the existing building of College of Statistical and Actuarial Sciences, University of the Punjab, Lahore becomes insufficient. A master plan was developed and PU authorities not only sanctioned it but also provided land and finance for the construction of new purpose-built building of the College. The construction work of administration block and ground floors of five academic blocks are hopefully completed at the end of this year.
 - The plan for the construction of first floors of academic blocks is also under the consideration.