

**CHAPTER****7****Strengthening Physical Infrastructure****Faculty of Arts & Humanities****COLLEGE OF ART & DESIGN**

- **Development Projects (Laboratories, Libraries, etc.)**
 - A number of 528 books have been added in the Library and the total number of books has now become 10, 211.
- **Construction Projects**
 - PC-1 has been approved for the construction. Funding is awaited for the commencement of the construction.

DEPARTMENT OF ARCHAEOLOGY

- **Development Projects (Laboratories, Libraries, etc.)**
 - Establishment of New Museum
 - Establishment of New Computer Lab (in progress)
 - Provision of furniture and conference table/ chairs in the library
 - Added Furniture in Library and Computer Tables in Computer Lab

DEPARTMENT OF ENGLISH LANGUAGE & LITERATURE

- **Development Projects (Laboratories, Libraries, etc.)**
 - The M.Phil, ELT and Linguistics sections of the Department Library have been computerized. The formation of electronic data-bank of MA English books is in progress.
- **Construction Projects**
 - Construction of Undergraduate block for BS(4 years) English is in progress.

DEPARTMENT OF HISTORY & PAKISTAN STUDIES

- **Development Projects (Laboratories, Libraries, etc.)**
 - New computers installed in departmental library.

DEPARTMENT OF PHILOSOPHY

- **Development Projects (Laboratories, Libraries, etc.)**
 - The classrooms are equipped with audio visual and multimedia projector facilities.
 - The Library of the department is computerized and computer facilities are also available in the Library.
 - A separate computer lab for the research scholars and student is also available.



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.
- **Construction Projects**
 - The construction of a new hall for library started in 2009-10. Furnishing of the new hall is in progress.

Faculty of Behavioral & Social Sciences

DEPARTMENT OF POLITICAL SCIENCE

- **Development Projects (Laboratories, Libraries, etc.)**
 - Two classrooms added for BS. Hons. Classes
 - Departmental library renovated (Books shelves/tile work etc.)

DEPARTMENT OF SOCIAL WORK

- Library of the Department added 150 new books on different subjects in this year.
- Two more class rooms were added, one for MSc Part-1, Replica and the other for MPhil.

INSTITUTE OF SOCIAL & CULTURAL STUDIES

- **Development Projects (Laboratories, Libraries, etc.)**
 - In order to upgrade the library facilities 268 number of latest books have been added in the Institutes library. The detailed status of institute's library is as follows:

Category	No.
Total No. of General Books	15182
Total No. of Reference Books	287
Total No. of Journals Subscribed (Local)	82
Total No. of Journals Subscribed (Foreign)	95
Total No. Thesis	323
Total No. of Reports	292
Budget provision for book	250,000

- **Construction Projects**
 - The first floor of ISCS is now completed and functional. It includes faculty offices, Class rooms, Library, Mosque and Ladies common room.



Faculty of Commerce

HAILEY COLLEGE OF BANKING & FINANCE

- **Development Projects (Laboratories, Libraries, etc.)**
 - We have recently added 100 new computers of the State of Art and have also been strengthening our Library by purchasing several books.
- **Construction Projects**
 - A new Academic Block has been built in our College from our own resources.

HAILEY COLLEGE OF COMMERCE

- **Development Projects (Laboratories, Libraries, etc.)**
 - Computer Labs = 3 Computer Labs
 - Library = 1 Open Shelf Library
 - Construction Proj. = Plan to construct Multipurpose Hall
Extension of Library
Extension of Computer Labs.

Faculty of Economics & Management Sciences

DEPARTMENT OF ECONOMICS

- **Development Projects (Laboratories, Libraries, etc.)**
 - Enhancement of the existing library by the inductions of new books and a new section. The department of economics has bought over hundred books in last year according to the need of the students.
- **Research Equipment**
 - The department has two computer labs according to the need of modern researches.
- **Construction Projects**
 - Extension of departmental building.

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

- **Development Projects (Laboratories, Libraries, etc.)**
 - DLIS received approval for renovation of department and extension of computer lab with more new 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 offering state of the art networking and IT facilities. 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 developed software for online evaluation of teachers through students and installed CMS for annual academic activities and our website is fully functional and updated regularly for on line information and services. It can be reached at : ias.pu.edu.pk

INSTITUTE OF BUSINESS ADMINISTRATION

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

- 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 30-09-2012	19,700
2	New books added during the reporting period	110
3	Total book as on September 30, 2013	19,815

- 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 Wi-Fi network.
- Established Audiology lab with latest equipment used to diagnose hearing level.

Faculty of Engineering & Technology

CENTRE FOR COAL TECHNOLOGY

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

- Sent proposals to HEC for providing funds for construction of phase-II of the building and purchase of Research Equipment.



- **Research Equipment**

Following equipment is added during this period.

- Magnetic separator
- Software key for GCV analysis

DEPARTMENT OF POLYMER ENGINEERING & TECHNOLOGY

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

- Certain development projects have completed and following labs are established in this context
 - Thermal analysis Lab
 - Mechanical analysis Lab
 - Polymer and material synthesis Lab
 - Polymer processing Lab
 - Spectroscopic Lab
 - Paint and Coating characterization Lab
 - We have 1 library related to our taught courses and research projects.

- **Research Equipment**

- | | |
|---|--|
| ○ Research Microscope | ○ Synthesis assembly |
| ○ Universal Testing Machine Floor Type | ○ Pendulum Impact Testing Machine |
| ○ Hardness Tester with different measuring ranges | ○ Dynamic Mechanical Analyzer with Accessories |
| ○ Lab Attritor | ○ Lab Scale Reactor |
| ○ Lab Mixing Extruder bench type | ○ Solution Viscometer |
| ○ High Temperature Press (Hydraulic) | ○ Gas permeability tester |
| ○ Ultrasonic Cleaner | ○ Cylindrical Mandrel Bending Tester |
| ○ Drying Time Recorder | ○ Wet Abrasion Scrub Tester |
| ○ Tubular Impact Tester | ○ Gloss Master |
| ○ Fineness Grind Gauge 0-100UMS wide | ○ Adjustable Film Applicators |
| ○ Hardness Tester | ○ Pinhole Detector |
| ○ Opacity Meter | ○ Spindle Viscometer |
| ○ Coating Thickness Tester | ○ Research Microscope |
| ○ Simultaneous Differential Scanning Calorimeter | Thermo Gravimetric Analyzer (SDT Q600) |
| ○ Differential Scanning Calorimeter (DSC Q 200) | |
| ○ Thermo Mechanical Analyzer (TMA Q400) | ○ Rheometer |
| ○ Gel Permeation Chromatograph (GPC) | ○ Pervaporation Unit |
| ○ Fourier Transform Infrared Spectrophotometer (FTIR) | |
| ○ Polymer Synthesis Pilot Plant | ○ Polymer Synthesis Glass Assemblies |



- Bench Scale Reactors
- Dip Goods Synthesis Plant
- Film Extruder
- Injection Moulding
- Oil Bath
- Rotamental
- Pipe Extruder
- Blow Moulding
- Mechanical Stirrer
- Hot Plate Magnetic Stirrer
- Orbital Shaker
- Glove Box

DEPARTMENT OF TEXTILE ENGINEERING & TECHNOLOGY

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

- Department of Textile Engineering & Technology purchased 330 books for the library from 2008 to 2013.

- **Research Equipment**

- Department of Textile Engineering & Technology purchased following pieces of equipment for its laboratories from 2008 to 2013:-

- | | |
|--|--|
| ▪ Computerized microscopic system | ▪ Infra Red Dyeing Machine |
| ▪ Launder-o-meter-automatic | ▪ Yarn examining machine |
| ▪ HT Dyeing and Washing Machine | ▪ Perspiration tester |
| ▪ Automatic wrap reel for yarn | ▪ Padder |
| ▪ Water repellency tester | ▪ Twist tester |
| ▪ UTM (Universal strength testing machine) | ▪ Martindale abrasion & pilling tester |
| ▪ Lab knitting machine | ▪ Flammability tester 45° |
| ▪ Random Tumble Pilling Tester | ▪ Crock meter |
| ▪ Incubator Cabinet | ▪ Magnetic Stirrer Hot plate |
| ▪ AATCC Launder-o- Meter | ▪ PH Meter |
| ▪ Simple Hot Plate | ▪ Electronic Psychomotor |
| ▪ Analytical Balance | ▪ Yarn Examining Machine |
| ▪ WRAP WREEL | ▪ Reciprocating Vacuum Pump |
| ▪ Glass Ware A Grade | ▪ Digital Thermometer |
| ▪ Mechanical Shaker | ▪ Glass Ware B Grade |

INSTITUTE OF CHEMICAL ENGINEERING & TECHNOLOGY

- **Research Equipment**

- The institute has state of the art research labs. Upgradation of these labs is a continuous process. Postgraduate labs are adorned with state of the art Analytical and Experimental facilities:

- | | |
|---------------------------|-----------------------------------|
| ▪ Automatic Density Meter | ▪ Karl fisher Titration Apparatus |
| ▪ Particle Size Analyzer | ▪ CFBC Feeder |



- Flame Photometer
 - pH meter
 - Refractometer
 - Atomic Absorption Spectrometer
 - Rheometer
 - DSC
 - Seive Shaker
 - Analytical Balance
 - Conductivity Meter
 - Gas Chromatograph
 - Micrometrics Chemisorb
 - FT-IR
 - TGA
 - Ball Mill
- **Construction Projects**
 - The faculty offices are being upgraded.
 - Thermodynamics laboratory is under construction phase and 2.6 million rupees have been allocated in the first phase of construction of this lab.

INSTITUTE OF QUALITY & TECHNOLOGY MANAGEMENT

- **Development Projects (Laboratories, Libraries, etc.)**
 - Projects are in process to equip Laboratories as per requirements of Pakistan Engineering Council.
 - Vice Chancellor of Punjab University has allocated Rs. 6 million to update Industrial Engineering laboratories from his special education funds.
 - Pakistan Engineering Council has allocated Rs. 0.3 million to update department library for engineering sections books.
 - University of the Punjab has allocated Rs. 0.3 million to update the department library.

Faculty of Islamic Studies

SHEIKH ZAYED ISLAMIC CENTRE

- **Development Projects (Laboratories, Libraries, etc.)**
 - The Computer Lab. of the Centre has equipped with 35 computers. Recently 10 new computers have been added. Now 45 computers are in working condition for the students of the Centre.
 - 12928 books were available in the library but during the course of time 279 books were purchased. Now the total numbers of books in the library are 13207.

Faculty of Life Sciences

CENTRE FOR CLINICAL PSYCHOLOGY

- **Development Projects (Laboratories, Libraries, etc.)**
 - 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 Project was completed in June, 2013 and inaugural ceremony was held on 28th June, 2013 by the Prof. Dr. Mujahid Kamran, worthy Vice Chancellor, University of the Punjab, Lahore.

CENTRE OF EXCELLENCE IN MOLECULAR BIOLOGY

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

- Strengthening of CEMB
- Establishment of National Centre for Stem Cell Research and Regenerative Medicine

- **Research Equipment**

- | | |
|-----------------------------|--------------------------------------|
| ○ Refrigerators | ○ Ultra Low Temperature Freezer -86C |
| ○ Air-Handling Unit | ○ Real Time PCR |
| ○ Cooling Tower | ○ Nitrogen tank |
| ○ UPS | ○ Cold cabinets |
| ○ Temperature Control Units | ○ Pipette man set |
| ○ Microscopes | ○ CIRAS-3 Photosynthesis System |

DEPARTMENT OF BOTANY

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

- Renovation of Plant Tissue Culture Research Lab at the department of Botany was carried out in order to up grade its infrastructural facilities at a total cost of Rs. 1.28 million and renamed as Plant Developmental and Regenerative Biology Research lab.

- **Construction Projects**

- Floor tiling of the department corridors is in progress.
- Renovation of Plant Biochemistry Research Laboratory is in progress at a total cost of Rs. 0.53 million provided by the University of the Punjab, Lahore.

DEPARTMENT OF MICROBIOLOGY & MOLECULAR GENETICS

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

- Established pilot scale animal house (animal sheds and cages)
- Established plant and soil analysis room.
- Established experimental station (Plant growth tunnels and related plant growth facility etc).

- **Research Equipment**

- Fermenter
- Rotary Evaporator
- Atomic absorption



- Spectrometer
- Refrigerator
- WiFi for research students
- Gel apparatus
- Eukaryotic Cell Culture Incubator
- Eukaryotic Cell Culture Hood
- Freezer -20C
- Centrifuge
- Microfuge
- Basic equipment Eukaryotic Cell Culture lab (Water bath, Autoclave etc)
- Gel Electrophoresis apparatus
- **Construction Projects**
 - Established new lawns in the department

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.
 - Overall 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: Balance 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.

INSTITUTE OF APPLIED PSYCHOLOGY

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

- Institute 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**

- Every year latest computers are added for the scholars of MS/MPhil and PhD. The institute also provides services of latest data analysis software for which training sessions are also arranged.
- Each year New Psychological tests are added to the Institute's testing lab which is one of the best testing Lab with a wide range of psychological tests for the assessment of personality, intelligence, aptitude, neurological functioning, diagnostic scales, adjustment, etc.

- **Construction Projects**

- Computer Lab has been constructed which hosts 100 users and is catering the needs of PhD, MPhil, MS, MSc and BS students.

INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY

- **Research Equipment**

- Real Time PCR
- UV/Vis Spectrophotometer
- Shaking Water Bath
- Laboratory Refrigerator Digital
- Ice Making Machine
- Fluorescent Microscope

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.foot plinth area is being constructed. This would enable the School to expand its existing research activities. The School had 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. Twenty two faculty members got this training during the 2013. . School is making rapid progress and is heading towards its objectives with the concerted efforts of younger faculty members and the senior faculty members under the able guidance of a worlds renowned Director General.

- **Research Equipment**

- List of Equipments purchased – 2012-13

S. #	Equipment Name	Quantity	Date
1.	Orbital Shaker	01	01/12/2012
2.	Peristaltic Pump	02	13/09/2012
3.	Scanner	01	01/11/2012
4.	Slit Air Conditioner LG	01	24/05/2013
5.	Split Air Conditioner Mitsubishi 2 Ton	02	10/06/2013
6.	Horizontal Gel Electrophoresis System	05	09/09/2012
7.	Fixed Angle Rotor with Adopters	01	18/09/2012
8.	Pipetting Controller	01	04/06/2013

- **Construction Projects**

- The construction of Ph.D. boys & girls hostels have been completed.
- The construction of third academic block of the School of Biological Sciences has been started.

Faculty of Oriental Learning

DEPARTMENT OF KASHMIRYAT (KASHMIR STUDIES)

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

Sr. No.	Particulars	Available in 2011	Addition	Total
1	Books	4829	279	5344
2	Research Journals	220	15	235
3	Thesis (M.A)	273	5	278
4	Thesis (M.Phil)	03	Nil	03
5	Ph.D Dissertation	04	01	05



DEPARTMENT OF URDU

- Installed two Multimedia's in the Classroom.

UNIVERSITY ORIENTAL COLLEGE

• College Library

- Oriental College Library is 2nd big library on language and literature of the University, comprising more than one lac collection including departmental Libraries:-
 - College Section: 44752 books
 - Arabic: 9432 books
 - Persian: 7685 books
 - Urdu: 18,830 books
 - Ref. 3073 books
 - Asiatic/Regional: 2,017 books
 - Oriental Publications: 12000. Books

• Computer Lab:

- Two combined Computer Labs for all the Teaching Departments and Institute of Languages of the College, comprises on 57 computers, the students, researchers and Teachers are facilitating with the Internet service.

• Language Lab:

- A combined Language Lab for all the Teaching Departments of this College, is consisting of 30 heads with the facility of Audio-visual aid equipments, computer and Internet service.

Faculty of Pharmacy

UNIVERSITY COLLEGE OF PHARMACY

• Development Projects (Laboratories, Libraries, etc.)

- Two new laboratories, Innovation drug delivery systems and Pharmaceutical Research Laboratory for Postgraduates have been established, renovation of under graduate Labs, and new Animal house have also been established.

• Research Equipment

- Ball mill

• Construction Projects

- Tough tile flooring for College of Pharmacy.
- A place for putting water filtration plant & coolers.



Faculty of Sciences

CENTRE OF EXCELLENCE IN SOLID STATE PHYSICS

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

Sr. No.	Duration	Sponsoring Agency	Funding
1.	2 years	Higher Education Commission	38.533 Million
2.	6 months	Higher Education Commission	0.5 Million

- **Research Equipment**

- Mini-Mill "Pulverisette 23"
- Scanning Kelvin Probe (SKP5050) with LE450
- D8 Advance Diffractometer System
- LHT 04/18 Electrically heated high temperature furnace

CENTRE FOR INTEGRATED MOUNTAIN RESEARCH

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

- CIMR was shifted from its old location near the Institute of Education and Research Building to its new location Near Institute of Space Science in its newly developed building. Phase 2 of the developmental program is under progress in which two class rooms are being constructed in the centre.

CENTRE FOR UNDERGRADUATE STUDIES

- **Research Equipment**

- Installation of previously purchased equipment like spectrophotometer and flame photometers in instruments lab.

COLLEGE OF EARTH & ENVIRONMENTAL SCIENCES

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

- **Library:** More than 307 books have been added to the library and the number has increased beyond 3181

- **Research Equipment**

The following Research Equipments were purchased in Projects.

Sr. No.	Name of Equipments	Nos.
1	Spectrophotometer	1
2	Suction Pump.	1
3	Sample Grinder	1
4	Lab Refrigerator	1
5	Distillation Assembly	1



- **Construction Projects**

- The construction of first floor of Administrative block has been started and is still under completion. Eight faculty offices and four research laboratories have been planned namely, Environmental Biotechnology Research Laboratory, Ecotoxicology Research Laboratory, Advanced Analytical Research Laboratory, Air and Noise Pollution Research Laboratory and Nanotechnology Research Laboratory.
- The construction of a Greenhouse has been started for performing phytoremediation experiments with microbes and plants.
- The construction of an Ecotoxicological Animal House is almost complete for experiments with animals.
- A weather station has been planned on the first floor of the College for studies pertaining to climate change.

COLLEGE OF STATISTICAL & 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.

- **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.

DEPARTMENT OF GEOGRAPHY

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

- 5 Labs. & One Library

- **Research Equipment**

- Sound level meter and 13 computers

DEPARTMENT OF MATHEMATICS

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

- Three Computer Labs.
- One Library



- **Research Equipment**

- 108 Computers
- 3 Multimedia

DEPARTMENT OF PHYSICS

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

- The existing Computer Labs have 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.

- XRD Lab
- Computer Lab
- FTIR Lab
- SPS Labs

INSTITUTE OF CHEMISTRY

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

- A number of were purchased in order to boost the research trend in the institute. Like every year, in last year books related to literature and chemistry has been purchased. No considerable construction projects were launched in last year.

PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

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

- Electronics Lab
- Open Source and E-Lancing Lab
- Remote Sensing & GIS Lab
- New Library established at PUCIT Quaid-e-Azam Campus (QAC)
- New Computer Lab. established at PUCIT QAC

- **Research Equipment**

- The following research equipment was purchased for the said tenure:-
 - GPS
 - Kaspersky Antivirus
 - D-Link Network Switch
 - 35 Digital Computers
 - Laptops
 - UPS and Electric items



- **Construction Projects**

- Two Academic Blocks
 - PUCIT QAC established
 - First Floor of IT Center under construction and expected to be completed by December, 2013.
- HRD building in plans, expected to be completed by June 2014.
- Academic block with 12, state of the art Lecture Theater at old campus expected to be completed by June 2014.
- Second Floor of PUCIT QAC under construction and will be completed by December 2013
- Tuff tiles in the premises of PUCIT Allama Iqbal Campus (AIC) fixed
- Renovation of 16 Classrooms with provision of modern educational equipment
- Establishment of Faculty Lounge

SCHOOL OF PHYSICAL SCIENCES

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

- Some projects are in progress to equip laboratories as per requirements by SPS.
- Advance Chemistry and Molecular Research Laboratory has been developed at SPS and all equipments are now in working condition.

- **Research Equipment**

Following equipment was managed.

- PCR machine and UPS.
- High Speed centrifuge machine.
- Electrophoresis system for Proteins and DNA.

- **Construction Projects**

- With the induction of more M.Phil and PhD students and availability of the grants, the current infrastructure will be further expanded according to requirement for Research and teaching activities necessary for the development of the School in order to cope with future challenges of Research Innovation and Development.

Punjab University Gujranwala Campus

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

- Library
 - The PUGC library has added 107 Books this year.

- **Construction Projects**

- The finishing work of extension building, extension of library and other maintenance work was completed during this period costing Rs.15.05 millions which was paid out of departmental funds of the Gujranwala Campus.



Punjab University Jhelum Campus

- **Development Projects (Laboratories, Libraries, etc.)**
 - Punjab University Jhelum Campus is strengthening its Computer Lab with latest Computers equipped with variety of Software Applications and implementation of Wireless Computer Network.
 - The Library of Punjab University Jhelum Campus is a digital Library and is being equipped with old and latest Text & Reference Books, Journals, Research Articles, Case Law & Internet facility.
- **Research Equipment**
 - 50 Computers with all accessories.
- **Construction Projects**
 - The Judicial Complex of Jhelum has been handed over to Punjab University, which is being converted into an Educational Institution according to the academic requirements.