

ANNUAL REPORT 2014



PIR MEHR ALI SHAH
ARID AGRICULTURE UNIVERSITY
RAWALPINDI

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VICE CHANCELLOR'S MESSAGE

Being an Agricultural Institution, our main objective is to impart education and training to produce high quality Agricultural Scientists. Therefore, we are committed with the philosophy that we advance our farmer community by sharing positive and proven ideas and experiences. Along with Agricultural Sciences, the university offers degree programs at all levels in basic and Natural Sciences, Social Sciences, Humanities, Management Sciences, Computer Sciences and Information Technology.



The University seeks to make a major contribution to the agricultural advancement across the country. Therefore, we are dedicated to the prosecution of research across all fields of study, believing in research culture with clear application and relevance.

With a dynamic and stimulating educational environment, our tradition is to accept challenges and to receive wisdom today, in order to achieve new things and new approaches for tomorrow. Embracing education in its widest context, we continually strive to remain at the forefront of knowledge.

We are committed to prepare our students to work, acquire skills and enhance their capabilities that equip them adequately to live in rapidly changing global environment.

PROF. DR. RAI NIAZ AHMAD

EXECUTIVE SUMMARY

During the year 2014, Pir Mehr Ali Shah (PMAS) Arid Agriculture University Rawalpindi made substantial efforts to improve academic as well as research activities alongwith financial resources. Various teaching departments were upgraded/ strengthened through the development of infrastructure, procurement of sophisticated scientific equipmentsand purchase of books etc. The faculty members completed so far 47 Research Projects worth Rs. 90.298 million which were sponsored by various funding agencies i.e. HEC, PSF, PARC, & UAF.

Faculty members attended seventy four National/International workshops/seminars/ symposiums/ conferences to share/transfer knowledge in different scientific fields within the country and globally.The faculty members were encouraged to improve their qualifications and visit universities aboard to update their technical knowledge and transfer technical know-how back home from international universities/institutes. During the year, faculty members of different departments of the University obtained doctoral/post-doctoral fellowships and executed research work in USA, China, Malaysia and Denmark.

The linkage between faculty, Industry and farming community was further promoted/ strengthened to ensure the penetration and achievements of objectives of the university. Memorandum of Understandings (MoUs) with various national and International organizations were signed for academic and research sharing. The provision of better Research facilities encouraged the faculty to publish 360 Research Papers in National (127) and International (233) reputed journals. For achieving high standards in teaching and research, the universityhas been ranked at 152 among the Agriculture and Forestry universities of the world (according the ranking carried out by the world's most renowned and prestigious ranking agency Quacquarelli Symonds (QS), UK).

ABOUT THE UNIVERSITY

Pir Mehr Ali Shah Arid Agriculture University Rawalpindi (PMAS-AAUR) was established in 1994 as University of Arid Agriculture by upgrading the Barani Agriculture College on the recommendation of Barani Commission Punjab. The mandate of the university is to produce high quality Agricultural Scientists and to form an organized scientific infrastructure for teaching and research for the development of dry land region of the country in general and Pothwar in particular; thus minimizing the income gap between the rich and poor.

Since its inception, PMAS-AAUR has experienced remarkable growth and is offering undergraduate as well as post graduate degree programs in variety of disciplines. The University includes a Faculty of Crop and Food Sciences, Faculty of Sciences, Faculty of Forestry, Range Management & Wildlife, Faculty of Veterinary & Animal Sciences, Faculty of Agricultural Engineering & Technology, Division of Continuing Education, Home Economics & Women Development, University Institute of Management Sciences (UIMS), University Institute of Information Technology (UIIT) and University Institute of Biochemistry & Biotechnology. The University building contains an auditorium, multi-storied administrative and academic blocks, a state of the art library and a sports gymnasium.

Pursuit of excellence on the University campus is a function of competent and dedicated university faculty. PMAS-AAUR has, therefore, made constant efforts at staff development with the result that nearly 60% of the faculty possesses Ph.D. degrees, while the others have M.Sc. (Hons) and M.Phil degrees.

Furthermore, PMAS-AAUR is committed to delivering an outstanding student experience; as well as to enjoy a reputation for excellence in teaching and learning alongside research. Students actively participate in extracurricular and co-curricular life on campus which includes speech events, seminars and activities related to entrepreneurial skill development. Together with a research-informed curriculum, and extracurricular activities, PMAS-AAUR strives to provide a well-diversified environment to students so that they can effectively contribute towards development of the country.

ACADEMIC ACTIVITIES

FACULTIES/INSTITUTES/DIVISION

FACULTY OF CROP & FOOD SCIENCES
Department of Agronomy
Department of Horticulture
Department of Entomology
Department of Plant Pathology
Department of Plant Breeding & Genetics
Department of Soil Science & SWC
Department of Food Technology
Department of Agri. Extension
FACULTY OF SCIENCES
Department of Zoology/Biology
Department of Botany
Department of Biochemistry
Department of Economics and Agricultural Economics
Department of Mathematics/Statistics
Department of Sociology & Anthropology
Department of Humanities
FACULTY OF FORESTRY, RANGE MANAGEMENT & WILDLIFE
Department of Forestry & Range Management
Department of Environmental Sciences
Department of Wildlife Management
FACULTY OF VETERINARY & ANIMAL SCIENCES
Department of Veterinary Basic Sciences
Department of Pathobiology
Department of Clinical Studies
Department of Livestock Production and Management
Department of Poultry Sciences
FACULTY OF AGRICULTURAL ENGINEERING & TECHNOLOGY
DIVISION OF CONTINUING EDUCATION, HOME ECONOMICS & WOMEN DEVELOPMENT
UNIVERSITY INSTITUTE OF MANAGEMENT SCIENCES
UNIVERSITY INSTITUTE OF INFORMATION TECHNOLOGY
UNIVERSITY INSTITUTE OF BIOCHEMISTRY & BIOTECHNOLOGY
SUB CAMPUSES
Sub Campus Khushab
Sub Campus Attock

ACADEMIC PROGRAMS

UNDERGRADUATE PROGRAMS		
BSc (Hons) Agriculture	BS in Biochemistry	BS in Computer Science
BS in Economics	BS in Forestry	B.Ed (Bachelor in Education)
BBA(Bachelor of Business Administration)	BS in Information Technology	DVM (Doctor of Veterinary Medicine)
BSc (Hons) Agri. Engineering	B.Sc (Hons) Human Nutrition & Dietetics	BS (Microbiology)
POST GRADUATE PROGRAMS		
Biochemistry	Information Technology	Biology
Botany	MBA (Agribusiness)	Economics
Statistics	Masters in Development Management	Sociology
Anthropology	MBA (3 ½ Years)	Zoology
Wildlife Management	MBA (1 ½ Year)	Environmental Sciences
Education	M.Ed (Masters in Education)	Computer Science
	Criminology	
M.SC (HONS)		
Soil Science & SWC	Agriculture Engineering	Entomology
Food Technology	Agricultural Economics	Plant Pathology
Plant Breeding & Genetics	Agriculture Extension & Communication	Agronomy
Horticulture	Poultry Science	
M.PHIL/MS		
Biochemistry	Environmental Sciences	Statistics
Sociology	Management Sciences	Botany
Zoology	Wildlife Management	Biology
Forestry & Range Management	Computer Sciences	Education
Biotechnology	Remote Sensing and Geographical Information System	
PHD		
Soil Science & SWC	Wildlife Management	Biochemistry
Food Technology	Computer Science	Zoology
Plant Breeding & Genetics	Agricultural Economics	Forestry & Range Management
Horticulture	Entomology	Environmental Sciences
Botany	Plant Pathology	Poultry Science
Economics	Agronomy	Education
Agriculture Engineering	Management Sciences	Biotechnology
	Remote Sensing & GIS	

ACADEMIC ACHIEVEMENTS

The university offers seventyeightdegree programmes in various disciplines of Agriculture, Agricultural Engineering, Basic & Social Sciences, Veterinary, Forestry, Range Management, Wildlife, Business Administration, Computer Sciences & Information Technology and Education. Currently the enrollment of the University is8753 which is increasing every year. The University initiated the new degree programs in 2014i.e. B.Sc (Hons) in Human Nutrition & Dietetics,BS in Microbiology, MSc. in Criminology, M.Phil in Biotechnology and Ph.D in Biotechnology which were also approved by the Academic Council. This University has so far turned out 255 Ph.D., about 14119 M.Phil, M.Sc. (Hons.)/ MS/ M.Sc. and, 6291 B.Sc.(Hons.)/D.V.M/BS/BBA/B.Ed.

Establishment of Sub Campus of PMAS-AAUR at Attock

A Sub Campus of PMAS-Arid Agriculture University at Attock has been established in 2014.In this regard a PC-I titled “Establishment of Sub Campus of PMAS-Arid Agriculture University Rawalpindi at Attock” was approved by the Agriculture Department, Government of the Punjab on 12.11.2014 for a period of two years with a total cost of Rs. 72.208 million. The Sub Campus of PMAS-AAUR has been established temporarily in Government College Attock. The undergraduate admissions in the field of Agriculture have been completed and the number of students admitted in B.Sc. (Hons) Agriculture has been crossed over 100.The Honourable Chief Minister Punjab has approved to include the land acquisition (1023 Kanals) in PC-I amounting to Rs. 112.052 million for establishment of Sub Campus at Attock.

Initiation of B.Sc (Hons) Agriculture Classes at University Research Farm, Koont, Gujar Khan

The university also started the classes of B.Sc (Hons) Agriculture at University Research Farm, Koont, Gujar Khan in 2014. The main theme behind the starting of classes at University Research Farm Koont is to equip the students of B.Sc(Hons) Agriculture about the practical aspects of their study. After practical hands on experience they will be able to adjust themselves in the business of agriculture related activities.

Establishment of Faculty of Agricultural Engineering & Technology

The University established a new faculty in 2013 i.e. Faculty of Agricultural Engineering & Technology. It is the dire need of Barani area to introduce Agricultural Engineering in this institution. Water conservation technology is also of prime importance due to the rain fed agriculture. The major task of Faculty of Agricultural Engineering & Technology is to apply technological and engineering tools to increase agriculture production, improve product quality and increase system efficiency while preserving the quality of the environment.

To strengthen the newly established faculty, a PC-I titled “Strengthening of Agricultural Engineering & Women Development Program at PMAS-AAUR” was submitted to Higher Education Commission of Pakistan for funding. The project was approved by the CDWP with a total cost of Rs. 751.244 million.

HONOURS AND AWARDS

Pir Mehr Ali Shah Arid Agriculture University Rawalpindi (PMAS-AAUR) ranked at 152 among the Agriculture and Forestry universities of the world, according to the ranking carried out by the world's most renowned and prestigious ranking agency Quacquarelli Symonds (QS), UK.

Awards of the Faculty

Prof. Dr. Nadeem Akhtar Abbasi, Chairman, Prof. Dr. Ishfaq Ahmad Hafiz, Department of Horticulture, Dr. Ghulam Jilani, Associate Professor, Department of Soil Science & SWC, Dr. Rahmatullah Qurehi, Associate Professor, Department of Botany, Dr. Shamim Akhtar, Associate Professor, Department of Zoology and Dr. Azeem Khalid, Associate Professor, Department of Environmental Sciences have been awarded “**Research Productivity Award**” from Ministry of Science and Technology, Pakistan Council for Science and Technology, Islamabad.

Zoologist of the Year has been awarded to Dr. Shamim Akhter, Associate Professor, Department of Zoology by the Zoological Society of Pakistan.

Best Teacher Award has been awarded to Prof. Dr. Tariq Masud, Chairman, Department of Food Technology.

INSTITUTIONAL LINKAGES

- ❖ Four Brothers Group of Companies Lahore
- ❖ Capital Development Authority Islamabad
- ❖ The Rawalpindi Chamber of Commerce & Industry
- ❖ State Life Insurance Corporation of Pakistan
- ❖ Agribusiness Support Fund
- ❖ Sustainable Used Specialist Group-Central Asia (SUSG-CASIA) Quetta
- ❖ DELL Pakistan
- ❖ Water and Power Development Authority (Wapda)
- ❖ Dairy and Rural Development Foundation
- ❖ CAB International (CABI) Central and West Asia, Rawalpindi
- ❖ Barani Agricultural Research Institute (BARI) Chakwal
- ❖ Indus Consortium Islamabad

RESEARCH AND DEVELOPMENT

R&D – AN OVERVIEW

The University, being the prime institute for agricultural education and research has the obligation to provide trained manpower to all sectors of agriculture in Punjab Province. The Faculty and Researchers of this University have been conducting basic and applied research in the field of:

- New Technologies to Overcome Water Shortage
- Production of Biofuels
- Formulation of New Food Products
- Promotion of High Yielding & Drought Resistance Wheat and Canola Cultivars
- Recycling of Organic Wastes of Sustainable Crop Productivity
- Production of Pathogen Free Horticultural Plant Nurseries
- Soil and Water Contamination Studies
- Biotechnology

The university is focusing its efforts on need base research of arid agriculture in general and Pothwar region in particular. A number of research projects have been completed in the past and still many research projects are being run by the faculty. Conducting research is mandatory for all students of both graduate and undergraduate levels. The faculty and researchers at the University are availing different funding opportunities for their research projects. Some are listed below:

- Higher Education Commission of Pakistan
- Pakistan Science Foundation
- Pakistan Agricultural Research Council (PARC)
- Punjab Agriculture Research Board (PARB)
- Endowment Fund Secretariate, University of Agriculture, Faisalabad.
- International Foundation for Science

RESEARCH FOCUS

University faculty focused their research activities on the issues of farming community of Barani areas in general and Pothwar in particular. These included projects related to soil conservation, weed management, drought tolerance studies in wheat through genetic engineering and environmental related issues. The following Research projects were operational during 2014.

- Potential application of nanotechnology in crop/vegetable growth, nutrient use efficiency, crop tissue culture and tolerance to osmotic stress
- Promotion of safflower (*Carthamus tinctorius*) through participatory approach in Pothwar
- Characterization of soil bacteria using gene sequencing and response of cereal to associative N₂ – fixer and P-solubilizers
- Stimulation of soil biological activity through organic amendments for enhancing phosphorus availability in soil-plant system
- Isolation and Identification of plant growth promoting N₂-fixing soil bacteria using macular techniques for improving legume cereal cropping system
- Inter-Comparison of CENTURY and DSSAT model simulations to improve soil based climate change resilience and adaptability of rainfed crop production systems in Pakistan
- Enhancing biological nitrogen fixation, soil water holding capacity and agronomic benefits through biochar application in dryland area
- Production of pathogen free, true to type olive plants through tissue culture
- Varietal improvement of gladiolus through in vitro mutation
- Improving yield quality and storage life of bell pepper by use of food grade chemicals
- Improvement of berry quality and post harvest performance of grapes cv. parlette and king's ruby by using food grade chemicals
- Identifying drought tolerant synthetic wheat lines and determining their genetic diversity through DNA makers.
- Genetic analysis of SUMOylation in tomato and its role in plant defense
- Genetic diversity and phylotyping of *ralstonia solanacearum* strains causing bacterial wilt of chilies in major chili growing areas of Pakistan
- Surveillance and pathogen characterization of bacterial canker of stone fruits using biochemical and molecular methods and its bio-management
- Studies on characterization and management of leaf crinkle virus infecting black gram
- Utilization of plant growth promoting rhizobacteria for the induction of systemic resistance in potato seed against bacterial rot diseases
- Nematodes infecting temperate fruits in pakistan and their management
- Surveillance and characterization of pathogens infecting loquat in Pakistan
- Development of bio-pesticides for the control of soil-borne diseases of tomatoes and chilies caused by *pythium* and *phytophthora* spp.
- Establishing year-round rearing facilities of bumble bees, important pollinator of commercial fruit and vegetable crops.

- Insecticide Resistance and mechanisms of resistance in brinjal shoot and fruit borer *Leucinodes orbonalis* (Lepidoptera: pyralidae)
- Mosquito fauna of pothwar region: A resource-based approach
- Ants- aphid's mutualistic association, its impact on biological parameters of aphids and predation of coccinelids
- Value addition of selected stone fruits by osmotic dehydration and hot air drying
- Production of butanol and ethanol from agricultural and municipal wastes
- Characterization of putative promoter elements in OsRGLP2 promoter region
- Identification of genetic risk factors for metabolic syndrome in a Pakistani population of local origin
- establishment of tissue culture and genetic transformation protocol for local varieties of lentil (*Lens Culinaris Medik*)
- Screening of cellulose degrading extremophilic enzymes from indigenous fungi and study of site-directed mutagenesis strategies to enhance their activity
- Population size, food Habits and Economic Importance of Commensal Rodents in Rural Pothwar
- Screening of different avian egg yolks for cryopreservation of buffalosemen: a step to improve fertility in buffaloes with frozen semen
- Biodiversity and ecology of bats and rodents in the thorn forests and croplands of the Potohar plateau
- Biological control of rats and mice in agricultural areas of pothwar barn owl (*Tyto Alba*)
- Baseline studies on wildlife diversity in selected protected areas of Pakistan (Phase-II)
- Spatail distribution of habitats influences anuran diversity and space use in the landscape implications for conservation beyond species level
- Role of crop field boundary vegetation in population ecology of passerine birds in pothwar area
- Ecologically-based rodent management in croplands of pothwar plateau, Pakistan
- Bio treatment of industrially discharged azo dye contaminants using bio augmentation
- Utilizing bacterial ACC-deaminase biotechnology to mitigate impact of water stress (drought) on cereal crops
- Development of breed identification marker for Pakistani dairy cattle breeds
- Development of genetic evaluation model for dhanni cattle as potential beef cattle in potohar region of Punjab
- Collaborative research for genetic conservation and improvement of pakistani goats jointly funded by USAID and HEC
- Preparation and application of multi-epitopes DNA vaccines against newcastle disease
- Development of breeding objective for improved milk protein quality of dairy animals
- Evaluation of intravenous hypersomotic sodium bicarbonate solution as an adjunct to antibiotic therapy on acid-base status and cardiovascular function in buffalo calves with induce and spontaneous neonatal diarrhea associate with *escherichia coli*;
- Demonstrational hydroponic model of vegetable production under shade house

RESEARCH PROJECTS FUNDING

The PMAS-AAUR Faculty also undertook Research Projects in addition to teaching assignments. These projects were sponsored by different funding/donor agencies. The detail of Research Projects is given below:

S No	Name of Funding Agency	Completed	On Going	Total No of Projects	Amount (Rs. in M)
1	Higher Education Commission	22	29	51	242.652
2	Pakistan Science Foundation	11	16	27	52.463
3	Pakistan Agriculture Research Council	10	1	11	25.432
4	Punjab Agricultural Research Board	0	2	2	7.747
5	Endowment Fund UAF	4	1	5	9.783
7	International Foundation for Science/WWF	0	4	4	4.100
	Total	47	53	100	342.177

PUBLICATIONS

The faculty published 360 Research Publications in National and International reputed journals in 2014. (Details are given at Annexure-I)

CONFERENCES, SEMINARS AND WORKSHOPS, ETC.

Holding of Seminars, Workshops and Conferences is regular feature of the university where experts from various fields are invited to share their experiences with faculty, students & researchers on current issues of international and national importance. Such an activity is important for research and academic development of an institution as it provides guidelines for policy development at national level. During 2014, different

departments of the University organized Twenty Three (23) International and National Workshops/Seminars/Conferences. The university faculty also participated and contributed research papers in Twenty One (21) International and Fifty Three (53) National Workshops/Seminars/Conferences (Details are given at Annexure-II)

RESEARCH JOURNALS

Journal of Agriculture and Biological Sciences

In order to infuse a culture of publications among the faculty and research students the charges for publication in the journal were revised. Any student who intends to publish will be charged at subsidized rate, while faculty members can publish one paper free of cost per journal as first author of the journal. The journal is circulated to about 80 different organizations in the country and 10 international organizations without price.

PMAS-AAUR-News

In order to have a close contact with community and activities at university “PMAS-AAUR NEWS” is published on monthly basis. This is widely circulated among students, faculty and to all sister organizations.

Naveed-e-Baran

This magazine is an annual publication which carries creative contribution from students and is managed by an Editorial Board mainly comprised of students.

RESEARCH COLLABORATIONS

The University has initiated collaborative projects with the following R&D organizations for the purpose of research.

- Himalayan Wildlife Foundation (HWF), Islamabad
- Punjab Wildlife & Parks Department, Lahore
- Directorate of Wildlife & Fisheries, AJ&K, Muzaffarabad
- Sustainable Use Specialist Group, Central Asia, Quetta
- Human Rights & Minorities Affairs Department. Govt. of Punjab, Lahore
- Agribusiness Support Fund
- Dairy and Rural Development Foundation
- World Wide Fund
- Pakistan Bait-ul-Mal

FOREIGN LINKAGES

The University has developed external linkages with the reputed R&D organization all over the world in order to strengthen his students and faculty. These are as follows:

- ❖ University of Florida USA
- ❖ International Center for Agriculture Research in the Dry Areas (ICARDA) Syria
- ❖ Institute of Agro Environmental and Forest Biology & National Research Council Italy
- ❖ Ohio State University USA
- ❖ Curtin University of Technology, Western Australia
- ❖ Nova Scotia Agriculture College, Canada
- ❖ Hebei Agriculture University (HAU) China
- ❖ The University of Bedfordshire U.K.
- ❖ Massey University New Zealand
- ❖ Northwest A&F University China
- ❖ Department of Environmental Engineering, Bioenergy Technical University of Denmark
- ❖ Management Committee of Baise National Agricultural Science and Technology Zone of Guangxi, P.R. China
- ❖ Biogas Institution of the Ministry of Agriculture (BIOMA) P.R. China
- ❖ Kyungpook National University
- ❖ Chinese Academy of Agricultural Mechanization Sciences (CAAMS)
- ❖ Engineering Research Center of Biological Control, Ministry of Education, College of Natural Resource and Environment, South China Agricultural University

OPERATIONS OF OFFICE OF RESEARCH, INNOVATION AND COMMERCIALIZATION (ORIC)

The Office of Research, Innovation & Commercialization (ORIC) a central staff office reporting to the Vice Chancellor, is charged with administrative responsibility for all University research and related activities involving extramural sponsorship. In fulfilling its duties, the Office of Research serves as both a center of advocacy for research and related activities, and facilitator of the research environment. The functional areas supported by Office of Research staff include information services, project and proposal development assistance, and grants and contracts administration for pre-award and selected post-award tasks. All proposals submitted by University personnel must be transmitted to and reviewed by Office of Research staff to assure adherence to internal and external policies and procedures. The Director of the Office serves as the designated University Officer for all related matters. The Office of Research, Innovation & Commercialization seeks to enhance the environment for all research and scholarships by:

- Supporting the university's strategic research directions and policies
- Increasing and diversifying external research funding
- Improving recruitment and retention of top faculty
- Improving integration of research and education at all levels of the university
- Improving translation of research into the public benefit
- Strengthening university-industry relationships
- Promoting entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy
- Promoting and enhancing crosscutting and multi-disciplinary research initiatives

QUALITY ASSURANCE

QUALITY ENHANCEMENT CELL

On the direction of Higher Education Commission, Islamabad the University established its Quality Enhancement Cell (QEC) in February, 2007 aimed to enhance quality in higher learning to converge towards international compatibility using the following tools/practices:

- Review quality standards and the quality of teaching, learning and research.
- Promote public confidence in academics and research outputs of the University.
- Develop quality assurance processes and methods of evaluation to affirm that the quality of provision and the standards of awards are being maintained.
- Develop procedures for monitoring and evaluation, departmental review of different degree programs, student's and employer's feedback, about quality of education etc.

VISION

"To develop the Pir Mehr Ali Shah Arid Agriculture University into a Centre of Excellence by providing an outstanding educational environment with emphasis on arid/rainfed agriculture and related professions"

MISSION

- To achieve excellence in teaching and research through continuous quality enhancement by monitoring and reviewing the progress
- To form a well-organized scientific infrastructure for teaching and high-tech research for the development of dry land regions of the country
- To produce graduates with adequate training for high professional achievements to enhance the scientific vision for the barani areas

IMPACT OF QUALITY ASSURANCE IN THE UNIVERSITY

The QEC is striving hard to improve the University ranking at national as well as international levels via identification of missing links in different academic and research endeavors, propose rectification and ensure their execution and monitoring. Resultantly, university gained 152nd position in world ranking in the field of Agriculture & Forestry and 2nd position amongst the Agricultural Universities in the country. Quality Assurance agencies helped to develop sound assessment strategies and provide guidance for benchmarking

MEMBERSHIP OF ASSOCIATIONS/NETWORKS

The Quality Enhancement Cell (QEC) of the University is linked with the Quality Assurance Agency of Higher Education Commission, Pakistan. The QEC has availed membership of an international quality network named “Asia Pacific Quality Network (APQN)”.

Asia Pacific Quality Network (APQN) has been developed with the purpose of serving the needs of quality assurance agencies in higher education in a region that contains over half of the world's population and Pir Mehr Ali Shah Arid Agriculture University Rawalpindi is an institutional member of APQN. It has been participating in its online discussion on Internal Quality Control.

The QEC has also availed the membership of “*TUFTS University/Talloires Network*” and “*QA-Islamic(Quality Assurance Agencies of the Islamic World)*”.

QEC-AAUR ACHIEVEMENTS

Quality Enhancement Cell at PMAS-Arid Agriculture University is striving hard to enhance the quality of education and research. The University has distinction among other universities of Pakistan that it has recruited all the QEC staff on regular/permanent basis. After its establishment in February 2007, the QEC has made efforts for the quality enhancement of this University. A summary of activities/reforms are as under:

1. Self Assessment Program

Despite resistance and lethargic attitude of the Program Team, the QEC has been successful and is near to accomplishing self assessment reports (SAR). The Directorate helped and provided guidance to the program Team Members of all departments in finalizing the reports.

2. Reviews of Department

Lately the Vice Chancellor, with assistance of the Director QEC, planned an extensive program for review of each department of the University. Deans of respective faculties, Chairpersons and all faculty members of the concerned departments attended the review sessions. The Vice Chancellor issued directions on the spot for improvement of the quality of education and research of the respective departments. Review of 12 departments of two main faculties viz. Faculty of Sciences, Faculty of Crop and Food Sciences and Division of Continuing Education has been completed by this time. The review program for the remaining departments is underway

3. Sharing Knowledge of Scholars Returning from Foreign Training

The QEC provided an appropriate forum to the scholars returning from offshore after their doctoral/post-doctoral studies to share their knowledge conducted in technologically advanced countries with the faculty members and scholars of this University.

4. Improvement of Examination System

To ensure fair and quality examination of the PhD written comprehensive examination, the QEC with cooperation of the Controller of Examinations has streamlined the comprehensive examination. Now the comprehensive examination is conducted at the university level as per date sheet under an organized invigilation system, and is therefore more credible. The QEC also monitors the oral part of the comprehensive examination.

5. Synopses and Thesis Defense

For the credibility of the doctoral degree awarded by this university, the QEC is closely monitoring the synopses and Thesis defense.

6. Quality of Research Thesis

The QEC, with the cooperation of Director Advance Studies, has randomly reviewed several thesis with aim of their quality enhancement.

7. Faculty Attendance and Delivery of Lectures

With full support of the Vice Chancellor and cooperation of Deans, QEC has been successful in improving faculty attendance and lectures delivery as per weekly schedule. Moreover steps are being taken to improve the practical aspect of the courses.

8. Quality Question Papers

The QEC has reviewed theory and practical question papers of all the departments. A report was submitted to the Vice Chancellor who directed the faculty to set the standard question papers. The QEC has also arranged a seminar for teachers regarding setting the quality question papers.

9. Course Files

A revolutionary step has been taken by the Vice Chancellor. A course file has been made mandatory for each faculty member offering a course during a semester. The file will contain description for the course/course content, weekly teaching schedule, grading policy with each activity such as assignments, quizzes, Mid and Final examinations question papers, grading sheets (results/award list) of the course and difficulties/problems faced during the course delivery etc. All the course teachers have been directed to submit regularly a copy of each file to the QEC office at the end of each semester.

10. Laboratory Books for Research Scholar

QEC has lately designed and implemented a laboratory book for all postgraduate research students of the University. The lab book is mandatory for all the research

students and must be maintained regularly. All Chairpersons and Supervisors have been requested to direct their research students to get the Laboratory Book registered from QEC before its use. It can be asked by the QEC to produce it at any stage of the candidature and in particular at the time of submission of thesis with the introduction of Lab. Book. It will improve the quality of research and also legitimacy of the fresh and innovative research being conducted by the young scholars of the institution. At this stage, the QEC has registered almost 800 Laboratory Books of different departments for PhD, M.Phil and M.Sc(Hons) students.

11. PhD Review

The Higher Education Commission has initiated the PhD Program Review of all public and private universities and base on the data provided by the QEC to HEC. The PhD Review committee visited the university on 05.11.2014 to review the all PhD program offered by the University.

12. IPER

The commission has approved the recommendation of the National Quality Assurance Committee for introducing the Institutional Performance Evaluation (IPE) process in all the universities of the country with the objective to improve the quality of universities/institutions. In line with the IPE Review Manual, the QEC has prepared University Portfolio Report and submitted to HEC. The IPE Review Panel visited the university on 19-21 August, 2014.

FACULTY DEVELOPMENT

Faculty Development is a continuous phenomenon in order to achieve academic excellence. Therefore, to improve academic programs, the addition of new faculty is a regular feature at the University. The management of the University has great coherence, liaison and coordination with faculty in enhancing quality educational & research opportunities. Resultantly, PMAS-AAUR is producing useful & trained human resource in specialized sectors of Agriculture, Sciences, Information Technology, Management Sciences and Allied Disciplines. The details of regular faculty members in different faculties are as under:-

Sr. #	Name of Faculty/Institute	Lecturer	Assistant Professor	Associate Professor	Professor	Total
1.	Faculty of Crop & Food Sciences	11	35	14	13	73
2.	Faculty of Sciences	25	24	10	7	66
3.	Faculty of Forestry, Range Management & Wildlife	5	7	3	3	18
4.	Faculty of Veterinary & Animal Sciences	12	11	5	2	30
5.	Faculty of Agricultural Engineering & Technology	2	1	1	1	5
6.	University Institute of Information Technology	12	8	-	-	20
7.	University Institute of Management Sciences	9	8	1	1	19
8.	Sub Campus Khushab	6	2	-	-	8
Total						239

The University has been encouraging and supporting its faculty and researchers to opt for different professional development training programmes both at national and international level. These programmes include short term trainings and other joint research and development activities with universities and institutions. The faculty and researchers have also been facilitated for presenting their research and publications at national and international fora. The faculty members were encouraged to improve their

qualifications and visit universities abroad to update their technical knowledge and transfer technical know how back home from international universities/institutes. During the year, following faculty members obtained doctoral/post-doctoral fellowships and short term trainings in abroad:

POST DOCTORATE

S. #	Name of Faculty Member	Department	Name of Country
1.	Dr. Asif Ahmad, Associate Professor	Food Technology	USA
2.	Dr. Farzana Siddique, Assistant Professor	Food Technology	USA
3.	Dr. Syed Moazzam Nizami Associate Professor	Forestry & Range Management	China

DOCTORATE

S. #	Name of Faculty Member	Department	Name of Country
1.	Mr. Muhammad Ali, Lecturer	Agri. Extension	Malaysia
2.	Mr. Fahad Raza, Lecturer	FV&AS	USA
3.	Syed Mushhad Mustuzhar Gilani Assistant Professor	UIIT	China
4.	Mr. Tahir Iqbal, Lecturer	Agri. Engineering & Tech.	China
5.	Ms. Aisha Umair, Lecturer	UIIT	Denmark

TRAINING COURSE/SHORT TERM TRAININGS

S. #	Name of Faculty Member	Department	Name of Course/Training	Name of Country
1.	Dr. Gulshan Irshad Lecturer	Plant Pathology	Utilizing Indigenous Food Resources for Food Security	Thailand
2.	Dr. Irfan Ahmad Baig Associate Professor	Economics & Agri. Economics	Training at Charles Sturt University as part of the ACIAR Project	Australia
3.	Dr. Muhammad Rais Lecturer	Wildlife Management	Post-Doctoral Training in Herpetology	Australia
4.	Dr. Azeem Khalid Associate Professor	Environmental Sciences	Managerial Training Workshop on Integrated Resource Recovery Centre Approach	Bangladesh
5.	Dr. Mobushir Riaz Khan Director	Uni. Institute of Information Tech.	Training at Charles Sturt University as part of ACIAR Project	Australia
6.	Dr. Muhammad Javaid Asad, Associate Professor	Biochemistry	Short Term Training	USA
7.	Dr. Nasir Mukhtar Assistant Professor	FV&AS	Short Term Training	UK
8.	Dr. Imtiaz Ahmad Khan Associate Professor	FV&AS	Short Term Training	USA
9.	Mr. Saqib Hussain Hadri Lecturer	Biochemistry	Short Term Training under the Project EUIBB	USA
10.	Ms. Naureen Aslam Lecturer	Biochemistry	Short Term Training under the Project EUIBB	USA

ACCESS

BASIC ENROLLMENT

There has been continuous increase in the student intake in various disciplines and the student enrollment increased from 5192 to 8753 in the last five years. The detail of which is given in below table:

S No	Name of Degree	2010	2011	2012	2013	2014
01	Graduates	2513	2907	3028	3715	4730
02	Post Graduates	2494	2647	2998	3437	3691
03	Doctoral	185	191	214	249	332
	Total	5192	5745	6240	7401	8753

GENDER-WISE DETAIL

SR. NO.	PROGRAM	MALE	FEMALE	TOTAL
1.	Bachelors	3304	1426	4730
2.	Masters	938	1511	2449
3.	M.Phil/MS (Hons)/MS	668	574	1242
4.	Ph.D	197	135	332
	TOTAL	5107	3646	8753

EMPLOYABILITY

In order to facilitate the graduates in job placement, Students Resource Centre (SRC) consistently striving to develop linkages with the industry by providing the online recruiting tools either through its own resources and/or the private partners. Presently, the University has about 8000+ registered members on its Alumni Association who are regularly informed about various opportunities/job openings through electronic email. Students of the Agriculture Department found jobs in different fields of government, semi-government and private sectors.

FACULTY-STUDENT RATIO

The faculty-students ratio is Approximately 1 :30.

UNIVERSITIES BUILDING ECONOMIES

UNIVERSITY-INDUSTRY LINKAGE

The University is in the process of developing linkage with the industrial / farming community. It has developed linkage with following organizations at National and International level:-

1. Barani Area Research Institute, Chakwal.
2. Fauji Fertilizer Company, Multan.
3. Alfalah Bank, Rawalpindi
4. Agency for Barani Area Development, Rawalpindi.
5. Pakistan Council for Scientific & Industrial Research, Lahore.
6. Ali Akbar Group of Pesticides.
7. Syngenta Pakistan Pvt. Ltd.
8. FMC Pvt. Ltd.
9. Nestle Milk Pack Pakistan.
10. Nuclear Institute for Biotechnology & Genetic Engineering Faisalabad.
11. Arqam Foods.
12. Fuji Cereals.
13. Shezan Pak. Ltd. Hattar, Rawalpindi.
14. Vita Bread & Dawn Bread, Rawalpindi,
15. Haleeb, Pepsi Cola (Pvt) Ltd.

NEW INITIATIVES

PMAS-Arid Agriculture University Rawalpindi is striving hard to provide a diversified academic environment for Pothwar youth looking towards joining hands with modern world for exportable surplus. University administration is endeavouring to bring about a tangible change with a view to equip the graduates for self-employment thereby making a positive contribution in national development in addition to providing livelihood for themselves and the poor farming community of the region. The university has embarked upon new initiatives and projects tapping need oriented vision for the Pothwar.

Establishment of Nursery Training Project

A plant nursery comprising of various indigenous and exotics species was established at the main campus of the University. The main objective of establishing this facility is to strengthen the practical facilities of the undergraduate and postgraduate students. Beside thus plants of various species will be sold at cheaper rates to the public in order to enhance their esthetic sense as well as to curb the menace of pollution.

Establishment of Clean Drinking Water Facility

With increase in population in the country, the demand for clean drinking water has increased significantly. However due to burgeoning environmental pollution people are being confronted with many water borne diseases and the problem is increasing day by day. The present Government is determined to provide such basic common facilities to common people for better tomorrow and bright, healthy future. Keeping above in view, the university established the Clean Drinking Water Facility for the students and staff of the University.

Establishment of Community Center

The purpose for establishment of community center is to showcase the farm fresh university products for the consumption of university employees, students and public. This will also act as source of revenue for the university as well as learning for the students.

Establishment of Ostrich Research Farm

Ostrich, a rare bird having extraordinary potential for conversion of food into meat, is being raised at the university as a model for the Pothwar farmers to adopt. Its meat is being sold at a very high price in International market and therefore, provides ample opportunity for the farmers of the region to improve their livelihood through raising Ostrich at their farms.

Rain Water Harvesting Model for Small Farmers

Taking advantage of the short spell of monsoon rains, the University has converted its research area into a model farm with provision for collecting summer rains into small reservoirs through which the water saved amounts to 45 acre-foot which is sufficient for irrigation of its entire farm spreading over 250 acres using high efficiency irrigation system operated through solar energy. Similarly, for urban areas a rainwater harvesting model of rooftops of university campus has also been developed and the water stored is enough to irrigate experimental plots on acreage at the campus. This effort presents an excellent model for kitchen gardening through rainwater harvesting in urban areas besides minimizing street flooding and resulting discomforts in civic life during rainy season.

Aquarium-cum-Aviary

The Arid varsity presents a novel combination of Aquarium-cum-Aviary as a model for integrated farming where the waste of birds on top will be used as feed for fish in pond at the bottom. The model is an effort towards resource optimization at farm level for dissemination to the farming community of the area.

Seed Certification

Knowing the gap for the availability of quality inputs to the farming community, the university established a seed certification centre at the campus by using existing resources of highly qualified manpower and equipment available in the university labs. The centre will also serve as R&D facility to help existing seed certification bodies in the country in addition to provide certified quality seed to farming community of Pothwar and adjoining areas.

Low Cost Indigenous Hydroponics System

PMAS-Arid Agriculture University is successfully operating a state-of-the-art hydroponic vegetable production facility on commercial basis where certified, spray and disease free vegetables, salads and herbs are being grown and marketed inland and off shore. To lessen the input costs and make adaptable by the small farmers, the university faculty is

engaged in development of simplified and low cost hydroponics technology. Objectives of this effort also include provision of inputs such as nursery, nutrients and growing substrates by the University at minimum cost for popularization of the technology at masses level.

The University has also taken new initiatives by establishment of following offices in order to introduce the entrepreneur culture, boost up the linkages with the local industrial eco system and to generate funds for smooth running of the institution. The efforts will be made to tape up the existing resources of the University for revenue generation and to look into the new opportunities and avenues for fund raising:

- Business Incubation Center
- Directorate of External Linkages
- Directorate of Academics

PATENTS

The faculty of the University is doing exclusive research and succeeded in applying the patents for the outcomes of their research activities which are beneficial for the local farming community in order to increase the Agriculture and Livestock production in the Barani areas of the region.

S #	Product Name	Ingredients	Effects/Benefits
1.	A polyherbal composition for cooling, refrigerant, antioxidant and appetizer	Cichorium intybus, Foeniculum vulgare, Corchorus depressus, Citrullus lanatus, Cucumis melo and C. sativus	Cooling, diuretic and refrigerant tonic that can be used for treating jaundice, lack of appetite and burning sensation of palm and soles
2.	Six Transgenic Wheat varieties with Bacterial disease resistant genes	Six Wheat varieties viz. Chakwal-97, Inqulab-91, GA-2002, Aquab-2002, Tartara-2000 and Punjnanad-2000 with Xa21 gene (a gene produce inhibitor like protein that act as broad spectrum Anti-bacterial protein)	Although bacterial diseases are less destructive for wheat in Pakistan as compare to fungal diseases. But this product and procedure will help in production of Fungal disease resistant wheat in future (project under progress). Similarly, these transgenic wheat varieties can enhance yield up to 20% where bacterial diseases cause a significant loss in wheat yield.

INTERNSHIP AND PLACEMENT OFFICE

The activities of students resource centre regarding placement / internship opportunities & alumni achievements are as under:

1. Laptops Schemes

Currently, the Prime Minister Laptop Scheme has been going on since February, 2014 and in two phases, as much as 567 laptops have been distributed among MS/M.Phil & PhD students of the University by the Higher Education Commission of Pakistan.

2. Endowment Fund Initiative

The University, on 1.06.2013, under the title “Student Endowment Fund” opened an account in the Bank of Punjab, UAAR Campus, Murree Road, Rawalpindi at an initial value of Rs. 55,49,000. Promotion of Education in Pakistan (PEP) Foundation shared Rs. 10,21,054. The value of account is now over Rs. 8.500 million.

3. Punjab Educational Endowment Fund (PEEF) Scholarships

The PMAS-Arid Agriculture University Rawalpindi has enthusiastically, benefitting for its students from this opportunity offered by the Government of Punjab. A total of 338 students have availed this facility in 2013-14. The Directorate of Financial Assistance & University Advancement is processing postgraduate student’s cases whereas undergraduate students are applying directly to the forum.

4. Pakistan Scottish Scholarship Under British Council Pakistan

In last December, the British Council signed an agreement with PMAS-Arid Agriculture University Rawalpindi for providing scholarships under the Pakistan Scottish Scholarship Program to female students of this University. In 1st Phase, 09 slots were provided and now the slots have been increased to 12 under new MoU.

5. Pakistan Bait ul Mal

The PMAS-AAUR has signed a MoU with Pakistan Bait ul Mal last year. According to it, the earlier will invite applications in each semester and interview of deserving students through a committee will be carried out and will refer to PBM.

6. HEC Need Based Scholarship

Higher Education Commission has been providing funds to PMAS-AAUR for HEC Need Based Scholarship since 2012. Higher Education Commission has allocated Rs. 21.496 Million in Fiscal year 2013-14 for the award of 75 additional slots along with 167 allocated slots. 1166 students applied for this scholarship in Fiscal Year 2013-14 against the new 75 allocated slots to the University. Directorate of Financial Assistance & University Advancement advertised this scholarship opportunity for

deserving students and the Institutional Scholarship Award Committee (ISAC) recommended the award of HEC Need Based Scholarship to new 75 unprivileged students of different degree programs. A total of 242 students availed this scholarship in Fiscal Year 2013-14.

7. Directorate of Financial Assistance & University Advancement executed different scholarship programs like Punjab Educational Endowment Fund, USAD Merit & Need Based Scholarship Program, Pakistan Scottish Scholarship under British Council Pakistan, HEC Need Based Scholarship Program, Ministry of Religious Affairs Scholarship, Prime Minister's Tuition Fee Reimbursement Programme, Educational Assistance through Pakistan Bait-ul-Mal and several others. Traditional activities i.e. advertisements of scholarship programs, ensure scrutiny of application in the light of eligibility criteria, meetings of Institutional Scholarship Award Committee, final selection of scholarship awardees, issuance of funds, preparation of fund utilization reports and evaluation of academic progress were successfully carried out for all scholarship programs.
8. Verification of scholarship forms of students funded through external sources is also a regular activity of the Directorate. Approximately 1394 application forms were processed efficiently.
9. The Directorate of Financial Assistance & University Advancement also process cases of PhD students getting scholarship grants from Higher Education Commission.
10. The Worthy Vice Chancellor & Team of Directorate of Financial Assistance & University Advancement along with 29 Scholars of Prime Minister's Tuition Fee Reimbursement Scheme attended the cheque distribution ceremony on June 17, 2014 at Murree.
11. A launching ceremony of Pak USAID funded Merit & Needs Based Scholarship Phase-II was conducted in HEC on September 17, 2014 and attended by the worthy Vice Chancellor and team of Directorate of Financial Assistance along with 16 scholars/alumni of USAID funded Merit & Needs Based Scholarship.

STUDENT COUNSELING AND CAREER GUIDANCE

The counseling is done under the patronage of Directorate of Student's Affairs where a compact counseling system is answering day to day queries of students. Directorate of Students Affairs is important components of university where students enjoy delightful environment and deliver a series of programmes to enrich the campus life. This office

also enhancing student's awareness and provide a platform for multi-cultural exchanges between student's and encourages students to achieve the objective of building a balanced personality

- Pakistan Tobacco Company Private Limited conducted a seminar & recruitment test on 17.04.2014. More than 400 students & alumni attended this activity in University Auditorium.
- A Training Workshop; Entrepreneurial Skills Development Workshop from 18th – 21st September 2014 was held at Youth Development Centre, Murree and was attended by Deputy Registrar, Directorate of Financial Assistance along with 23 Scholars of Punjab Educational Endowment Fund Scholarship.

STRENGTHENING PHYSICAL INFRASTRUCTURE

DEVELOPMENT PROJECTS (LABORATORIES, LIBRARIES, ETC.)

Developmental projects play very important role in uplifting and growth of an institution. The University is continuously taking initiatives for improvement the current status through different development projects. Eighteen development projects have already been completed. Currently the University is implementing four such projects (Rs. 1279.552million) while two new proposal were also submitted to HEC in next year PSDP. The University carried out various plans, formulated strategies & putting in strenuous efforts to enhance the financial resources from avenues outside PMAS-AAUR. Funds were also fetched from the Higher Education Commission of Pakistan under different schemes for establishing/strengthening new departments at PMAS-AAUR. These efforts will create more research facilities for the students and the faculty members.

The funds amounting to Rs. 374.500 million (3.5 million US\$) in the form of aid and grant has been fetched from Korean International Cooperation Agency (KOICA) for the project titled **“The Establishment of Pak-Korea Capacity Building Center for Agriculture & Livestock Technology at Arid Agriculture University Rawalpindi, Pakistan”**. In this regard a PC-I amounting to Rs. 395.500 million was submitted to HEC and approved by the CDWP on 16.01.2014.

Another project titled **“Strengthening of Agricultural Engineering & Women Development Programs at PMAS-AAUR”** amounting to Rs. 751.244 million has also been approved in the CDWP. Under this project, various teaching & research laboratories will be established for undergraduate & postgraduate students.

Development Projects : i) Completed

Name of the Project	Total Cost Rs. In Million
Development of Academic Facilities at UAAR	49.740
Establishment of Centre for Information Technology.	27.961
Strengthening of Higher Education Facilities at UAAR	39.645
Establishment of Centralized Instrumentation Centre	37.108
Establishment of Department of Range Management & Forestry	35.972
Establishment of Fiber Optic Backbone & Campus Wide Local Area Network	25.300
Production of Pathogen Free Horticultural Plants	35.884
Construction of Hostel for Visiting Faculty	24.438
Construction of Hostel for Students	36.436
Strengthening of Department of Soil Science & SWC	33.580
Strengthening of Centre for Information Technology	34.346
Strengthening of Department of PBG	31.783
Strengthening of Sports Facilities at UAAR	38.885
Strengthening of Department of Entomology	34.783
Establishment of R&D Facility in Hydroponic	52.546
Strengthening of Department of Wildlife Management	36.141
Strengthening/ Up gradation of Library Facilities at PMAS-AAUR	41.021
Establishment of University Institute of Biochemistry & Biotechnology	358.619
Total (Rs. in Million)	974.188

ii) Ongoing

Development Projects (On-Going)	Cost (million Rs.)
Establishment of Faculty of Veterinary & Animal Sciences	468.620
Development On Farm Students Research Facilities	343.224
The Establishment of Pak-Korea Capacity Building Center for Agriculture & Livestock Technology at PMAS-AAUR	395.500
Establishment of Sub Campus of PMAS-Arid Agriculture University Rawalpindi at Attock	72.208
Total (Rs. in Million)	1279.552

RESEARCH EQUIPMENT

Research being an integral part of projects is built in the PC-I while planning project proposals. The state of art equipment is up and running at project facilities. These include many high voltage equipment at University Research Laboratories.

The University has a unique facility having Central Research Laboratory in which postgraduate students and faculty are busy for the accomplishment of their research activities. This facility has several sophisticated research equipments being exclusively used for this purpose. The research projects being executed through this facility/laboratory have generated a lot of research findings in the area of Agriculture, Sciences and Forestry. The Laboratory has also produced a number of skilled and trained manpower in the shape of graduate students who by taking up various positions in Government and non-governmental organizations, could significantly contribute towards the over objective of national economy.

The major equipments available in the Central Research Laboratory are as under:

Name of Equipment	Quantity	Make/Model	Main Specification
Gas Chromatograph	1	GC-NU74 Agilent Technology Singapore	Includes Special Configuration LAN Rs-232 interfaces and 7683 interface, detector EPC Board 6tem ramps, 6 heated zones plus oven, 2 analog out
HPLC	1	SCL-10A, LC-10NT CTO-10AS, SPD-10A, SIL-10AD Shimadzu Japan	Binary pump with automatic variable piston stroke Delay volume 180-482ul <0.3% RSD setpoints from 0.001 to 5.0 ml/min in 0.001 ml/min 0-40MPa (0-400bar, 0-5880Psi)
DNA Sequencer	1	CEQ-800, Beckman Coulter Switzerland	CEQ Genetic Analysis System 100-240V, 5A, 50/60HZ A fully automated high throughput sequencing and fragment analysis system
Total Organic Carbon Analyzer	1	ASI-V, VCPH, TNM-1 SSM-5000A Shimadzu Japan	High temperature catalytic combustion from 680C ⁰ to 950C ⁰ Method is EPQA4151 Standard methods 5310B, dIN 38409113
Freeze Drier	1	CRYODOS-50 Telstar Spain	Air cooled Refrigerator 0.37KW (1/2 HP). CFC and H-CFC free refrigerant without vacuum pump ice condenser temperature appro. -55C ⁰

Ultra Centrifuge	1	Optima-100P. Beckman Coulter Switzerland	US CE Mark Speeds to 100,000 Rpm g. Forces to 802,400g vacuum-encased, frequency controlled direct drive (induction)
Flame Photometer	1	Jenway-PFP-7	-
Deionizer	1	SG Hamburg	Microprocessor controlled purity monitor. Providing digital resistivity readings temperature to 25C
Precision Analytical Balance	2	(i) Jex 120 Japan (ii) BL-210S Sortorius Germany	(i) Capacity 120g readability 0.1 mg power (ii) Capacity 210g readability 0.1mg power 220VAC 50/60HZ
Aluminum Block Heater	1	UDK42/26 Italy	Digital Microprocessor Controlled Temperature Settings upto 450C ⁰ built in timer with capacity 42 digestion tubes. Tubes capacity 100 ml operated voltage 220VAC
Oven	2	(i) UE-600 Memmert Germany (ii) 100-800 Memmert Germany	Digital Microprocessor temperature range up to 300C ⁰ capacity -256 Ltr
Porometer	1	AP-4 IRMECO England	Portable, microprocessor controlled. For measurement of stomatal gas flow Measurement Range 0-40S-Cm-1(resistance) 0.2-30mmS-1 (Conductance)
IRGA/Plant Photosynthesis Analyzer	1	LCA-4 IRMECO England	Different measurements, non-dispersive infra-red gas analyzer Range 0.3000ppm frequency 80HZ Source Life 10,000 Hours
Confocal Microscope	1	TSI Sr. No. 291300105 Canada	Two laser (i) Red (635) (ii) Green (532), Two Micron-Optical, Resolution using one micron

STRENGTHENING TECHNOLOGICAL INFRASTRUCTURE

DIGITAL LIBRARY

HEC National Digital Library (DL) is a programme to provide researchers within public and private universities in Pakistan and non-profit research and development organizations with access to international scholarly literature based on electronic (online) delivery, providing access to high quality, peer-reviewed journals, databases, articles and e-Books across a wide range of disciplines. The e-books support programme allows researchers to access most of the important text and reference books electronically in a variety of subject areas. Around 75,000 number of electronic contents have been made available through the Digital Library Programme. The Faculty Members/Researchers/Scholars of the University are taking full advantage of the above mentioned facility in the form of e-library and access to the internet.

The new resources added in the last year and changes will appear on the website page soon. The new sources are as follows:

- Informs
- DukeUniversity press
- IET library
- American Society of Agriculture and Biological Society
- Canadian Science publishing
- International Forestry Review
- University of Chicago Press
- RoyalCollege of Physician
- World Bank Library

Their access of URLs is as follows and one may test on access and disperse the information for these resources to most of the scholars.

<https://elibrary.asabe.org/>

<http://www.ingentaconnect.com/content/nrc>

www.dukejournals.org

<http://digital-library.theiet.org/>

<http://journals.informs.org/>

http://www.cfa-international.org/international_forestry_review.php

www.journals.uchicago.edu

<http://elibrary.worldbank.org/>

PERN2

Pakistan Education & Research Network PERN2 established a high speed dedicated link for the universities/institutes and other academic sectors of Pakistan. PERN2 provides students, faculty members and researchers a fully integrated and dedicated communication infrastructure using advanced Information & Communication Technologies.

CAMPUS MANAGEMENT SYSTEM

Campus Management System (CMS) is the most effective tool that has automated the management functionality of this university by streamlining the processes involved. It has reduced the manual handling of processes and thus helps in effective and accurate outcomes. CMS also helps in maintaining transparency in admissions and accounts processes and reduces administrative overhead by providing powerful services. It helps in effective decision making of authorities by generating reports from different aspects. This system was introduced in this university in the year 2010 and since then the performance of this system is improving day by day. At present the following modules are working in this system.

CAMPUS MANAGEMENT MODULES.

- Admissions Module
- Academic Module
- Examinations Module
- Personnel Module

The **Admission Module** automates the admission process of the university and streamlines the process involved for efficient and effective management. This module starts with the admission offered by the University for the new Session. Then prospectus sale starts. This module keeps track of all the information Department wise / Degree wise.

The system first keeps record of the entire candidates that applied for various degree programs offered by the university and automate the process of merit lists generation and fee submission process. It also provides the facility to transfer the degree programme of student if required and transfer the fee structure accordingly.

In the **Academic Module** the complete academic record of each student has been maintained in this system. It includes Enrolments, Course Offering, Scheme of Study, Students Attendance, Teacher Course Evaluation etc.

In the **Examination Module** the complete examinations record of each student has been managed. This helps in preparation of DMCs / Degrees as well.

In the **Personnel Module** the Employees record has been maintained. All these modules produce different reports that help the management in proper decision making. The next target of the CMS team is to develop an online Admission System.

VIDEO CONFERENCING

PMAS-AAUR established a video conferencing room at University Institute of Information Technology. The video conferencing room is equipped with latest video conferencing equipment and sound system. It is being used for holding multi-party conferences without traveling, delivering and attending courses and interacting with other academics and partners across the globe.

1. Hardware Specification

- a. Tandberg Video Conferencing System (built in camera)
- b. TOA Wireless mics Receivers
- c. Hundai LCDs (52" and 32")
- d. TOA Sound System (Equalizer, Sound Mixer, Remote Handle etc.)
- e. Sony TV 21" for Control Room

2. Capacity

About sixty-five (65) people setting capacity

3. Connectivity

The video conferencing session are established through HEC and can be connected to all over the world for conferencing

4. Location

The Video conferencing facility is provided in the Video Conferencing Room, 1st Floor at University Institute of Information Technology, PMAS-AAUR.

WEB PORTAL (www.uaar.edu.pk)

Web portal/Website plays an important role to represent the University in the world. Website is according to W3C standards. Website interface is user friendly information is categorized. PMAS-AAUR website has the following features/information:

- Information about departments
- All degrees information
- Degrees Verification
- Research repository
- Information about labs and library
- Sub Campus and University Research Farm information
- Evaluation system
- University administration and faculty profiles
- News updates
- Photogallery & Videos
- Tenders & Jobs

UNIVERSITIES BUILDING COMMUNITIES

UNIVERSITY-COMMUNITY INTERACTION

PMAS-AAUR is one of the leading higher education institutions in Pakistan. It plays a major role in grooming future leaders who can make a positive difference to the world around them. University has been involved with numerous community support programs. It has been working with different NGOs, government, semi-government/ non-profit organizations.

UNIVERSITY'S ROLE IN BUILDING COMMUNITY

The University has a significant social impact on the region. This impact extends beyond the staff and students to the broader community in general. University offers a wide range of cultural and recreational programs, contribute to the provision of health and community services, provide services to local government and provide assistance to community groups.

In addition to providing research, cultural and social fields, university provides valuable infrastructure for the community including venues for public events, libraries, sporting facilities and research laboratories.

The scholarly activities of a university serve to enhance the reputation of the local region both nationally and internationally. This may result in an increased attractiveness of the region to industries and investment. The University also offers regional communities a better chance to retain their talented youth population.

The students, faculty and administration of PMAS-Arid Agriculture University Rawalpindi have always worked tirelessly to serve their countrymen and at the time of floods when a catastrophe has hit our motherland, the university once again standing united to help the people of these areas in dealing with the after affects of this devastating flood. The University also dispatched the relief goods to the flood affected areas.

ALUMNI AFFAIRS: OUTSTANDING ACHIEVEMENTS ETC.

The Directorate of Financial Assistance & University Advancement is entrusted the responsibility to provide an interactive platform to closely link Alumni with their Alma Mater and fellow graduates. In order to achieve this goal, Directorate of Financial Assistance & University Advancement has started compilation of Alumni database since 2006 and now it consists of over 8000 registered graduates of different faculties and institutes of the University. The Directorate is making consistent efforts to encourage graduates to join this forum for development of friendly and business relationships amongst Alumni having similar background and diversified professions. Job portal was updated on regular basis and shared with the concerned alumni through email.

SPORTS

The Directorate of Sports is working hard for the promotion of sports and healthy activities at PMAS-Arid Agriculture University. The beautiful and prestigious **Khalid M. Khan Gymnasium** was completed in the university premises in 2010. The following Intervarsity Sports Championship were organized by Directorate of Sports:

INTERVARSITY VOLLEYBALL BOYS CHAMPIONSHIP 2013-14 ZONE “C”

Sixteen Universities from Rawalpindi/Islamabad and AJ&K participated in the championship. AJ&K University, Muzaffarabad team was the Winner while Bahria University, Islamabad was runner up.

PMAS-AAUR Students team also participated in the following Intervarsity Sports Championship during the year.

- **INTER UNIVERSITY BASKET BALL CHAMPIONSHIP 2013-14 (ZONE “C”)** held at Bahria University, Islamabad.
- **INTER UNIVERSITY FOOT BALL CHAMPIONSHIP 2013-14 (ZONE “C”)** held at COMSATS, Islamabad.
- **ALL PAKISTAN INTER UNIVERSITY ATHLETICS CHAMPIONSHIP 2013-14 (ZONE “C”)** held at COMSATS, Islamabad.
- **ALL PAKISTAN INTER UNIVERSITY TUG OF WAR CHAMPIONSHIP 2013-14 (ZONE “C”)** held at Veterinary University, Lahore.
- **INTER UNIVERSITY TABLE TENNIS CHAMPIONSHIP 2013-14 (ZONE “C”)** held at International Islamic University Islamabad.
- **INTER UNIVERSITY BADMINTON CHAMPIONSHIP 2013-14 (ZONE “C”)** held at AJ&K University, Muzaffarabad.
- **INTER UNIVERSITY CRICKET CHAMPIONSHIP 2013-14 (ZONE “C”)** held at Quaid-i-Azam University, Islamabad.
- **ALL PAKISTAN INTER UNIVERSITY BOXING CHAMPIONSHIP 2013-14** held at University of Sindh, Jamshoro, Sindh.
- **ALL PUNJAB INTERVARSITY BASKETBALL BOYS CHAMPIONSHIP 2013-14**, During Punjab Youth Festival, Lahore
- **ALL PUNJAB INTERVARSITY VOLLEYBALL BOYS CHAMPIONSHIP 2013-14**, During Punjab Youth Festival, Lahore.

- **ALL PUNJAB INTERVARSITY TUG OF WAR BOYS CHAMPIONSHIP 2013-14**, During Punjab Youth Festival, Lahore.
- **ALL PUNJAB INTERVARSITY ATHLETICS BOYS CHAMPIONSHIP 2013-14**, During Punjab Youth Festival, Lahore.

The following Inter Faculty Sports Championships were organized by Directorate of Sports during the year.

- **INTER FACULTY BADMINTON (BOYS) CHAMPIONSHIP 2013-14**
- **INTER FACULTY VOLLEYBALL (BOYS) CHAMPIONSHIP 2013-14**
- **INTER FACULTY BASKETBALL (BOYS) CHAMPIONSHIP 2013-14**
- **INTER FACULTY TUG OF WAR CHAMPIONSHIP 2013-14**
- **INTER FACULTY 100 METER RACE 2013-14**
- **INTER FACULTY HANDKERCHIEF GAME CHAMPIONSHIP 2013-14**
- **INTER FACULTY GIRLS TUG OF WAR CHAMPIONSHIP 2013-14**
- **INTER FACULTY GIRLS THREE LEG RACE 2013-14**
- **INTER FACULTY GIRLS CHATTI RACE 2013-14**
- **INTER FACULTY GIRLS HANDKERCHIEF GAME CHAMPIONSHIP 2013-14**

Following Intervarsity Sports/Games Events were organized during Punjab Youth Festival:

- **INTERVARSITY OF VOLLEYBALL GIRLS CHAMPIONSHIP 2013-14**
- **INTERVARSITY VOLLEYBALL BOYS CHAMPIONSHIP 2013-14**
- **INTERVARSITY BADMINTON BOYS CHAMPIONSHIP 2013-14**
- **INTERVARSITY BADMINTON GIRLS CHAMPIONSHIP 2013-14**
- **INTERVARSITY TABLE TENNIS BOYS CHAMPIONSHIP 2013-14**
- **INTERVARSITY TABLE TENNIS GIRLS CHAMPIONSHIP 2013-14**
- **INTERVARSITY TUG OF WAR BOYS CHAMPIONSHIP 2013-14**
- **INTERVARSITY TUG OF WAR GIRLS CHAMPIONSHIP 2013-14**
- **INTERVARSITY BASKETBALL BOYS CHAMPIONSHIP 2013-14**

UNIVERSITIES BUILDING LEADERSHIP

STUDENT LEADERSHIP (CO-CURRICULAR ACTIVITIES : UNIVERSITY DRAMAS, EXHIBITIONS, EXPOS, COMPLETIONS, DEBATES AT NATIONAL AND INTERNATIONAL LEVELS)

Following extra-curricular activities were organized by the Directorate of Students Affairs during the year 2014.

DATE	EVENT	PLACE
16.01.2014	Naat & Qiraat Competition	University Auditorium
22.01.2014	Annual Aridian Youth Festival 2014 – Naat Competition	Sports Ground
22.01.2014	Annual Aridian Youth Festival 2014 – Singing Competition	Sports Ground
22.01.2014	Annual Aridian Youth Festival 2014 – Drama/Skit	Sports Ground
14.02.2014 to 15.02.2014	Punjab Youth Festival 2014	University Auditorium
March 2014	Punjab Youth Festival – Naat Competition	Lahore
March 2014	Punjab Youth Festival – Singing Competition	Lahore
March 2014	Punjab Youth Festival – Drama Competition	Lahore
March 2014	Punjab Youth Festival – Dry Flower Arrangement	Lahore
March 2014	Punjab Youth Festival – Fresh Flower Arrangement (Ikebana)	Lahore
March 2014	Punjab Youth Festival – Fresh Flower Arrangement (Artistic)	Lahore
March 2014	Punjab Youth Festival – IT Competitions	Lahore
07.03.2014	World Women Day 2014 – Bilingual Declamation	University Auditorium
07.3.2014	World Women Day 2014 – Poetry (Humorous)	University Auditorium

07.03.2014	World Women Day 2014 – Cultural Dress Show	University Auditorium
19.03.2014	Screening Camp for Hepatitis B & C	University Medical Center
20.03.2014 to 21.03.2014	2 nd Lyallpur Literature Festival 2014 – Interuniversity Drama Competition	Uni. of Agri. Faisalabad
24.03.2014 to 29.03.2014	Spring Splash 2014 – (Won Interuniversity Naat/Drama/ Mime Competition)	Preston University
25.03.2014	Celebrations of Pakistan Day	PNCA
27.03.2014	Pakistan Destination Presentation Competition	University Auditorium
29.03.2014	Participation in Youth Forum	Convention Center, Islamabad
02.04.2014	Seminar on Leadership Skills	University Auditorium
04.04.2014	Lecture on “Effective Oral Presentation”	University Auditorium
13.05.2014	Lecture by Syed Babar Ali on “Role of Leadership in Steering Education Towards National Issues”	University Auditorium
08.05.2014	Celebrations of PRCS	Prime Minister House
15.05.2014	Seminar on “Youth: Future Agents of Change or Guardians of Establishment”	Marriot Hotel, Islamabad
22.05.2014	Singing Competition	PNCA
28.05.2014	Seminar on “Environmental Radioactivity and Harmful Effects of Ionizing Radiations”	Seminar Room
29.05.2014	Celebrations of Youm-e-Takbeer	University Auditorium
29.05.2014	Naat Competition	PNCA
02.06.2014	Poster & Essay Writing Competition by ALSBDS	UIIT Campus
10.06.2014	Seminar on Sexual Violence by British High Commission	-
21.06.2014	Participation in Seminar on International Interfaith Day	Global Peace, Islamabad
23.06.2014	Vaccination Camp of Hepatitis B by RCCI	University Medical Center
27.06.2014	Visit of Students to Scouts Camp, Ghora Gali, Murree	Scouts Camp, Murree

03.07.2014 to 18.07.2014	Campaign in regard of Dund Collection for IDPs of North Waziristan	PMAS-AAUR
18.07.2014	Charity Drama Show “Wajood”	University Auditorium
July 2014	Awareness Campaign in favour of Pak Army regarding Operation “Zarab-e-Azab”	PMAS-AAUR
18.07.2014	Participation in Charity Cricket Match	Rawalpindi Cricket Stadium
July 2014	Anti Smoking Campaign	PMAS-AAUR
14.08.2014	Celebrations of Independence Day	PMAS-AAUR
29.08.2014	Conference on “The World Beyond 2015: Is Higher Education Ready”	Serena Hotel, Islamabad
22.10.2014	Participation in Launch Ceremony of Plan International’s “Because I am a Girl”	Serena Hotel, Islamabad
27.10.2014	Exclusive Session about Pink Ribbon Day by Shaukat Khanum Hospital	-
30.10.2014	Participation in Drug Awareness Walk by ANF	Kachehri Chowk to Ayub Park Rawalpindi
13.11.2014	Awareness Raising Session on “Protection of Women at Workplace” In collaboration of Lead Pakistan	Seminar Room (UIBB)
04.12.2014	Celebration of Anti-Corruption Day (Painting, Poster, Banner & Slogan Competitions)	University Auditorium
08.12.2014	Urdu Debate Competition by NAB	Bahria University, Islamabad
10.12.2014	Bilingual Declamation by HEC (1 st Position in Urdu Debate)	HEC Auditorium, Islamabad
11.12.2014	Drama Competition by Idara-e-Talim-e-Agahi (1 st Position)	Shah Abdul Latif Bhattai Auditorium, Islamabad

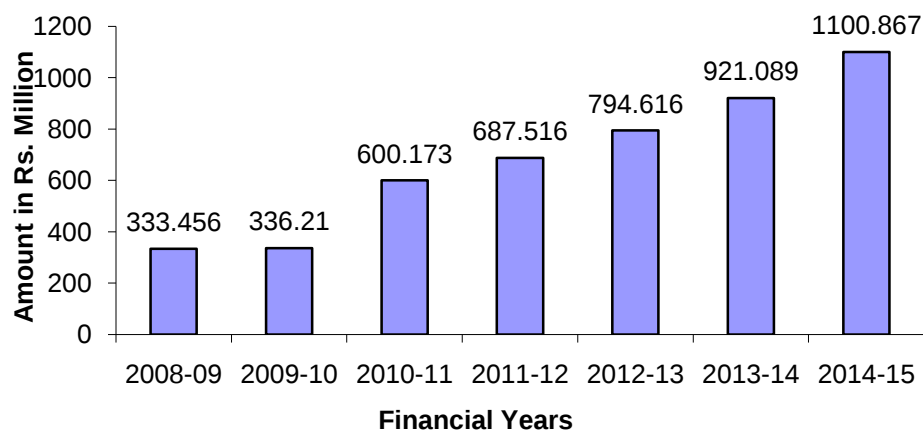
FINANCE

SUMMARY OF REVISED BUDGET ESTIMATES FOR THE YEAR 2014-2015

INCOME ESTIMATES				EXPENDITURE ESTIMATES			
Sources of Income	Estimates 2013-14	Revised Estimates 2013-14	Estimates 2014-2015	Head of Accounts	Estimates 2013-2014	Revised Estimates 2013-2014	Revised Estimates 2014-15
Opening Balance	120111667	120111667	175000000	Pay and Allowances	467737886	491851202	553372024
Punjab Government	50241000	50241000	55265000	Purchase of Durable Goods	12000000	13760000	24200000
Federal Government	414441000	414441000	464379000	Research Projects	5500000	3800000	4500000
Supplementary Grant from Federal Government	20000000	20000000	25000000	Construction Work	47081708	46023502	72762165
Own Resources	116696069	131113366	137785302	Repair of Durable Goods	6000000	6000000	6100000
University Fee From UIMS	54307193	61362193	64430303	Commodities & Services	91800000	93250000	102500000
University Fee from UIIT	98000000	109104000	114559200	Transfer Payments	89269000	89269000	97000000
Income from Affiliated Institutes	9000000	21913202	16950287	Miscellaneous Expenditure	17000000	17600000	21000000
Khushab Campus	2554167	4452150	11760432	Contingent Paid Staff	6100000	13400000	13500000
Federal Government Grant for Tenure Track Faculty	14242086	14242086	14242086	Overtime/Evening sitting	4500000	6500000	6500000
Federal Government Grant for Need Base Scholarships	21496000	21496000	21496000	Reimbursement of Medical Charges	5000000	5500000	6000000
				Building Rent (old building of UIIT)	1500000	300000	2400000
				UIMS Department	38046634	44827576	44837684
				UIIT Department	47803682	54299318	56419270
				IT Network Data Centre	22064372	22300700	26968230
				UAAR Sub Campus Khushab	16014728	18219130	20876012
				UAAR Research Farm Chakwal	5520440	5755040	6105040
				Tenure Track System	14242086	14242086	14242086
				Need Base Scholarships	21496000	21496000	21496000
Total	921089182	968476664	1100867610	Total	918676536	968393554	1100778511

FINANCIAL YEAR AT A GLANCE

SUMMARY OF BUDGET ESTIMATES



RECURRING BUDGET

Recurring Funding (Punjab Govt.) In Million Rs.						
2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
17.112	20.53	22.64	41.36	43.079	50.241	55.265
Recurring Funding (HEC) In Million Rs						
2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
142.62	213.928	237.668	298.117	364.251	414.441	464.379

TREND OF PER STUDENT SPENDING

For FY 2013-14 = Rs. 128100 per student on total expenditure basis
For FY 2014-15 = Projected as Rs. 140100 per student on total expenditure basis

SUMMARY OF DEVELOPMENT BUDGET ESTIMATES (2014-15)

S. No.	Name of Project	Estimated Cost (Rs. In m)	Total Exp. Upto (30.06.13) Actual (Rs. In m)	Unspent Balance Carried Forward for (2013-14) (Rs. In m)	Releases during (2013-14) (Rs. In m)	Total Available Funds (2013-14) (5+6) (Rs. In m)	Exp. During (2013-14) (Rs. In m)	Total Exp. (4+8) (Rs. In m)	Unspent Balance Carried forward 2014-15 (7-8) (Rs. In m)	PSDP Allocation (2014-15) (Rs. In m)	Estimated Budget During (2014-15) (10+11) (Rs. In m)
1	2	3	4	5	6	7	8	9	10	11	12
i.	Establishment of Faculty of Veterinary & Animal Sciences	468.620	335.973	0.000	60.000	60.000	29.217	365.190	30.783	53.426	84.209
ii.	Establishment of University Institute of Biochemistry & Biotechnology	358.619	261.451	23.049	45.477	68.526	51.042	312.493	17.484	28.642	46.126
iii.	Development of On-Farm Students Research Facilities at Koont Gujar Khan	343.224	231.634	13.366	78.224	91.590	43.029	274.663	48.561	20.000	68.561
	Grand Total	1247.625	829.058	36.415	183.701	220.116	123.288	952.346	96.828	102.068	198.896

AUDIT REPORT



DIRECTOR GENERAL AUDIT PUNJAB

6th Floor, AG Punjab Complex

Phone No: 042-99210147 Fax No: 042-99210166

16. TEST AUDIT NOTE

No test audit note was issued during audit. Minor issues were settled at the spot.

17. GENERAL REMARKS

Subject to the foregoing paragraphs on the financial matters and internal controls over the expenditure, stores/stocks, incidental charges and vehicles etc. accounts prepared and maintained according to the accounting standards, were found satisfactory. (2013-2014).

UNIVERSITY GOVERNANCE

SYNDICATE

The syndicate is the executive body of the University. Subject to the provisions of the Act and the Statutes, it takes effective measures to raise the standard of teaching, research and publications and other academic pursuits and exercises general supervision over the affairs and management of the property of the University. During the reporting period, three (03) Syndicate meetings were arranged and necessary decisions were taken in the best interest of PMAS-AAUR.

The University Syndicate consists of:

a.	The Vice Chancellor	Chairman
b.	Member of Provincial Assembly of the Punjab nominated by the Speaker of the Assembly	Member
c.	Chief Justice of the Lahore High Court, or his nominee	Member
d.	Secretary, Department of Agriculture, Government of Punjab, Lahore	Ex-officio Member
e.	Secretary, Department of Livestock and Dairy Development, Government of Punjab, Lahore	Ex-officio Member
f.	Secretary, Department of Finance, Government of the Punjab, Lahore.	Ex-officio Member
g.	One nominee of the Higher Education Commission	Member
h.	One Dean to be nominated by the Chancellor on the recommendations of the Vice Chancellor	Member
i.	Four elected members from the faculty of the University	Members
j.	Three persons of eminence to be nominated by the Chancellor	Members
k.	The Registrar	Secretary

ACADEMIC COUNCIL

The Academic Council is the academic body of the University. It is responsible to lay down proper standards of teaching / instructions, research, publications and examinations and to regulate and promote the academic life at the University. In year 2014, four (04) meetings of Academic Council were conducted, wherein revised/amended and new curricula for Undergraduate and Postgraduate studies were discussed and approved. The general rules and regulations pertaining to academic and administration were also argued and the decisions were made for implementation.

The Academic Council consists of:

a.	The Vice Chancellor	Chairman
b.	The Deans of the Faculties	Members
c.	The Directors of the Divisions/Institutes	Members
d.	All University Professors including Professors Emeritus	Members
e.	The Chairmen/Chairpersons of the Teaching Departments	Members
f.	All Associate Professors	Members
g.	Two Assistant Professors and two Lecturers to be elected by and from amongst themselves	Members
h.	The Librarian	Members
i.	The Controller of Examinations	Members
j.	Two Agricultural Scientists to be nominated by the Chancellor	Members
k.	Four representatives of NARC to be nominated by the Director General, NARC, Islamabad	Members
l.	The Registrar	Member/Secretary

ADVANCED STUDIES AND RESEARCH BOARD

The Advanced Studies and Research Board advise the authorities on all matters concerning promotion of advanced studies, publications and research in the University. The board considers and reports to the authorities on the institution of research degrees in the University. In the academic year 2014, Advanced Studies & Research Board was met for two times; the board afforded approvals and advised amendments, where necessary, on admission to post-graduate level, synopsis and research titles of post-graduate students, rules and regulations. The Board also scrutinized various research projects and approved/referred for revision.

Advanced Studies and Research Board consists of:

a.	The Vice Chancellor	Chairman
b.	The Deans	Members
c.	Directors of the Divisions and the Institutes of the University	Members
d.	Principals of Affiliated Colleges/Directors of affiliated Institutes	Members
e.	Three University Professors, other than Deans, to be appointed by the Syndicate	Members
f.	Three University teachers to be appointed by the Academic Council	Members
g.	Five experts from other sister Institutions to be nominated by the Syndicate	Members
h.	Director Advanced Studies	Secretary

FINANCE AND PLANNING COMMITTEE

The Finance and Planning Committee advise the Syndicate on all matters relating to planning, development, finance, investments, and accounts of the University. In year 2014, two (02) meetings of Finance and Planning Committee were conducted

The Finance and Planning Committee consists of:

a.	The Vice Chancellor	Chairman
b.	One member of the Syndicate to be appointed by the Syndicate	Member
c.	Two members of the Academic Council to be appointed by the Academic Council	Members
d.	Two nominees of the Chancellor, one each from Agriculture Department and Finance Department, Punjab	Members
e.	The Registrar	Member
f.	The Treasurer	Member/Secretary

DELEGATIONS AND VISITS

A delegation consisting of Awais Khan, Geneticist International Centre for Potato Crop, Peru, Nabeel Nawaz and S. Karim visited the Department of Horticulture on January 14, 2014. Chairman, Department of Horticulture gave them briefing about the departmental activities and discussed the option of potato seed production through aeroponic. They visited Tissue Culture Lab. and observed facilities in Laboratory for future cooperation in this regard.

The Italian delegation visited Department of Environmental Sciences on February 20-28, 2014 for the training on diviner probes installation and moisture content measurements in the field.

A delegation comprising of 13 members of the National Management College (NMC) Lahore headed by Mr. Fareed Mehmood Chaudhry, faculty member In-charge visited Pir Mehr Ali Shah Arid Agriculture University Rawalpindi (PMAS-AAUR on April 22, 2014 in connection with the inland study tour of the senior management course. The participants belonged to different occupational groups and services like Pakistan Administrative Service, Information, Pakistan Audit and Accounts, Foreign Service of Pakistan, Pakistan Customs Service, Postal, Police, Railways, Inland Revenue, Secretariat and Provincial Services. On the occasion, Prof. Dr. Rai Niaz Ahmad, Vice Chancellor, PMAS-AAUR gave a detailed presentation relating to existing infrastructure and the future short and long term vision of the PMAS-AAUR.

A five members delegation of Colorado State University headed by Dr. Ajay K Jha, visited the University on April 24, 2014. PMAS-AAUR and Colorado State University have agreed to initiate collective research projects and joint academic programmes in the field of agriculture, particularly on Farm water management. It was decided in a meeting of Vice Chancellor Prof. Dr. Rai Niaz Ahmad with a five members delegation of Colorado State University. They discussed the possibilities of collaboration in academic, research, training and value chain activities for the development of agriculture sector between the universities.

A two member's delegation of World Bank visited PMAS-AAUR on May 15, 2014. The delegation comprising by Mr. Halil Dunder, Lead Education Specialist, Senior Education Specialist and Ms. Ayesha Khan, Operations Analyst met with PMAS-AAUR Vice Chancellor Prof. Dr. Rai Niaz Ahmad and other senior faculty members. The world bank team appreciated the comprehensive work being carried on at PMAS-AAUR and expressed a hope for joining hand

in future to work for the issues related to education, particularly in financial aid and to strengthen the QEC and ORIC.

A visit of Star Farm Company comprising 60 farmers visited Department of Horticulture Labs on May 28-29, 2014. University field area was also visited and hydroponics unit at Rawat. Visit was headed by Director Star Farms Mr. Zeshan Ahmad and from University Ms. Najma Yousaf Zahid, Assistant Professor facilitated visit for two days as visit Coordinator.

A delegation of three scientist from Bangladesh named as Prof. Dr. Muhammad Slaiman Ali Fakir, Prof. Dr. M. Bushan Uddin and Prof. Dr. M. A. Rahim from Bangladesh Agriculture University Mymensingh, visited Department of Horticulture on August 16, 2014. They discuss with Prof. Dr. Nadeem Akhtar Abbasi, Chairman, Department of Horticulture on mutual interest topics like Fruit Production and post harvest handling of different fruits/vegetables. They also visited the Departmental Labs and met faculty members and Ph. D students. They also discussed a mutual collaborative work to be carried out in future in this regard.

A delegation from Massey University New Zealand visited PMAS-Arid Agriculture University Rawalpindi on October 29, 2014, with an aim to introduce higher education & research system of the New Zealand in Pakistan educational institutes to identify and establish long term collaborations and bilateral relations. The delegation comprising Prof. Dr. Richard Archer & Mr. Michael O'Shaughnessy met with the PMAS-AAUR Vice Chancellor and discussed the possibilities of collaboration in academics, research, training etc. between the both institutes.

A Class tour of 43 students and two teachers from Little Angle Public School Faisalabad visited department of horticulture on November 18, 2014. They visited departmental Labs and briefing was giving to them regarding functions of the labs and aims and objections of the education in agriculture

A Class tour of B. Sc. (Hons) Agriculture students (40) alongwith two teachers from University of Haripur, Department of Agricultural Sciences visited department of horticulture, AAUR on November 26, 2014. Students were shown different activities being carried out in the departmental Labs and research area. They were given briefing on the research projects of the department.

Faculty Publications

FACULTY OF CROP & FOOD SCIENCES

NATIONAL PUBLICATIONS

S. #	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Agronomy					
1.	Abbas, S. H., S. Batool, M. Sohail, S. K. Tanveer, R. U. Din, S. Siddiqui and M. A. Malik	Agroeconomic evaluation of various weeding techniques in wheat under rainfed conditions	Pakistan Journal of Weed Sciences	-	20(2): 183-198
2.	Khan, M. A., I. A. Hafiz, K. Farooq, N. A. Abbasi and A. Razzaq	Evaluation of potato hybrids for yield components in humid subtropical climate during autumn season	Journal of Agriculture & Plant Sciences	0.638	24(5): 1511-1517
3.	Murtaza, N., G. Shabbir, T. Mahmood and M. Ansar	Criterion for the selection of high yielding maize genotypes	Journal of Agriculture Research	-	55(2): 171-183
4.	Ullah, I., G. Jilani, K. S. Khan, M. S. Akhtar and M. Rasheed	Phosphorous solubilization from phosphate rock by the interactive effect of <i>Thiobacilli</i> and elemental sulfur	Journal of Agricultural Research	-	4(51): 431-442
5.	Ullah, I., G. Jilani, K. S. Khan, M. S. Akhtar and M. Rasheed	Sulfur oxidizing bacteria from sulfur rich ecologies exhibit high capability of phosphorous solubilization.	International Journal of Agriculture & Biology	0.902	16(3): 550-556
6.	Abid, J., T. Mahmood, A. Khalid, T. Siddique and I. Aziz	Optimization of pyrolysis yields of paper mulberry (<i>Broussonetia papyrifera</i>) and application of biochar product for the improvement of maize growth	International Journal of Agriculture & Biology	0.902	16(5): 929-934
7.	Khalid, A., J. Arshad, S. Mahmood, I. Aziz and M. Arshad	Effect of chromium forms on the biodegradation of reactive black-5 azo dye by psychrobacter and klebsiella species	International Journal of Agriculture and Biology	0.902	In press
8.	Syed, S., M. I. A. Haq, Z. I. Ahmed, A. Razzaq and M. Akmal	Root exudates and leaf leachates of 19 medicinal plants of Pakistan exhibit allelopathic potential	Pakistan Journal of Botany	1.207	46(5): 1693-1701
9.	Aziz, I., T. Mahmood and R. I. Khandakar	Impact of sole cropping and multiple cropping on soil humified carbon fractions	Pakistan Journal of Botany	1.207	46(6): 2157-2162
10.	Aziz, I., N. Bangash, T. Mahmood and R. I. Khandakar	Impact of No-Till and conventional tillage practices on soil chemical properties	Pakistan Journal of Botany	1.207	In press
11.	Ahmad, A., Z. I. Ahmed and I. Aziz	Fertilizer management strategies under rainfed conditions in lentil based cropping system	Sarhad Journal of Agriculture	-	In Press

12.	Wajid, A., A. Ahmad, M. Hussain, M. H. Rahmad, T. Khaliq, M. N. Tahir, F. Rasul and G. Hoogenboom	Modeling growth development and seed-cotton yield for varying nitrogen increments and planting dates using DSSAT	Pakistan Journal of Agricultural Sciences	1.240	51(3): 641-649
13.	Aziz, I., T. Mahmood and R. I. Khandakar	Impact of long-term tillage and crop rotation on concentration of soil particulate organic matter associated carbon and nitrogen	Pakistan Journal of Agricultural Sciences	1.240	In Press

Department of Horticulture

14.	Abbasi, N. A., I. A. Hafiz, A. A. Qureshi, I. Ali and S. R. Mahmood	Evaluating the success of vegetative propagation techniques in loquat cv. 'Mardan'	Pakistan Journal of Botany	0.947	46(2): 579-584
15.	Ali, I., N. A. Abbasi and I. A. Hafiz	Physiological response and quality attributes of peach fruit cv Florida King as affected by different treatments of CaCl ₂ , putrescine and salicylic acid	Pakistan Journal of Agriculture Sciences	1.24	51(1):1-7
16.	Sattar, A., A. Riaz, S. Ahmed and I. Hassan	Efficacy of selected plant extracts for inhibition of <i>Penicillium expansum</i> growth on apple fruits	Pakistan Journal of Phytopathol	-	26(1): 63-66
17.	Khan, M. A., I. A. Hafiz, K. Farooq, N. A. Abbasi and A. Razzaq	Evaluation of potato hybrids for yield components in humid subtropical climate during autumn season	The Journal of Animal & Plant Sciences	-	24(5): 1511-1517
18.	Abbasi, N. A., M. A. Chaudhary, M. I. Ali, A. Hussain and I. Ali	On tree fruit bagging influences quality of guava harvested at different maturity stages during summer	International Journal of Agriculture and Biology	0.808	16(3): 543-549

Department of Plant Breeding & Genetics

19.	Hussain, M., K. N. Shah, A. Ghafoor, T.T. Kiani and T. Mahmood	Genetic Analysis for Grain yield and various morphological Traits in Maize(<i>Zea mays L.</i>) under normal and water stress environment	Journal of Animal and Plant Sciences	-	24(4):1230-1240
20.	Hussain, M., T. T. Kiani, K.N. Shah and A. Ghafoor	Breeding Strategies for Developing Quality Protein Maize(QPM) under water deficit regime	Sarhad Journal of Agriculture	-	30(1):101-110.
21.	Minhas, N.M., S. U. Ajmal, Z.I. Ahmed and M. Munir	Genetic Analysis for grain quality traits in Pakistani wheat varieties	Pakistan Journal of Botany	0.5	46:1409-1413
22.	Murtaza, N., G. Shabbir, T. Mahmood, M. Ansar, M.I. Tabassum and M. Ilyas	Criterion for the selection of high yielding maize genotypes	Journal of Agricultural Research	-	52(1):43-52
23.	Ahmad, R., D. Ibrar, M.Y. Mirza, T. Mahmood, M.A. Khan, M.S. Iqbal and M. Ahmad	Genetic Variability heritability and genetic advance in some genotypes of linseed (<i>Linum usitatissimum L.</i>)	Journal of Agricultural Research	-	52(1) 43-52
24.	Tariq, A.S., Z. Akram, G. Shabbir, K.S. Khan and M.S. Iqbal	Heterosis and combining ability studies for quantitative traits in fodder sorghum (<i>Sorghum bicolor L.</i>)	Journal of Agricultural Research	-	52(3):329-337
25.	Altaf R., C. A. Rauf, F. Naz and G. Shabbir	Surveillance and morphological characterization of Fusarium isolates associated with lentil wilt.	Pakistan Journal of Phytopathol	-	26 (01): 85-90.

Department of Plant Pathology					
26.	Sultana, K., N. Riaz, G. Irshad and A. N. Khan	Mushroom flora of Rawalpindi-Islamabad, Pakistan	Journal of Bio Resources Management	-	1(1): 27-31
27.	Sultana, K., M. U. Shahbaz, M. I. Haque and G. Irshad	Trinacrium anchorum, a new hypomyceteous fungus from Pakistan	Journal of Plant Taxonomy and Geography	-	69(1): 75-77
28.	Fahim, A., C. A. Rauf and G. Irshad	Nucleotide evidence of capsid protein (CP) gene of potato virus Y (PVY) from a Pakistani isolate. Nucleotide evidence of CP gene	Pakistan Journal of Agricultural Sciences	1.24	Accepted
29.	Irshad, G., Z. Haider, M. I. Haque and Z. Ikram	Chemical control of fungal diseases of stored <i>Solanum lycopersicum</i> fruit by potassium bicarbonate and calcium chloride	Pakistan Journal of Phytopathology	-	Accepted
30.	Altaf, R., C. A. Rauf, F. Naz and G. Shabbir	Surveillance and characterization of fusarium isolates associated with lentil wilt	Pakistan Journal of Phytopathology	-	26(1): 83-90
31.	Sultana, T., F. Naz, M. I. U. Haque and S. Butt	Characterization and relative contribution of fungal and bacterial pathogens involved in sudden death syndrome of chillies	Pakistan Journal of Phytopathology	-	26(1): 53-61
32.	Ashfaq, M., M. A. Khan, T. Mukhtar and S. T. Sahi	Role of mineral metabolism and some physiological factors in resistance against urdbean leaf crinkle virus in black gram genotypes	International Journal of Agriculture & Biology	0.902	16(1): 189-194
33.	Iqbal, U., T. Mukhtar and S. M. Iqbal	In vitro and in vivo evaluation of antifungal activities of some antagonistic plants against charcoal rot causing fungus, <i>Macrophomina phaseolina</i>	Pakistan Journal of Agricultural Sciences	1.24	51(3): 689-694
34.	Ashfaq, M., S. Iqbal, T. Mukhtar and H. Shah	Screening for resistance to cucumber mosaic cucumovirus in chilli pepper	Journal of Animal and Plant Sciences	0.638	24(3): 791-795
35.	Hussain, M. A., T. Mukhtar and M. Z. Kayani	Characterization of susceptibility and resistance responses to root-knot nematode (<i>Meloidogyne incognita</i>) infection in okra germplasm	Pakistan Journal of Agricultural Sciences	1.24	51(2): 319-324
36.	Tahir, M. I., M. I. U. Haq, M. Ashfaq and N. A. Abbasi	Surveillance of Ralstonia solanacearum infecting potato crop in Punjab	Pakistan Journal of Phytopathology	-	26(1): 45-52
37.	Sattar, A., A. Riaz, S. Ahmed and I. Hassan	Efficacy of selected plant extracts for inhibition of <i>Penicillium expansum</i> growth on apple fruits	Pakistan Journal of Phytopathology	-	26(1):63-66
38.	Riaz, A., A. Riaz, A. R. Rattu, M. I. Tahir and M. Azeem	Phenylalanine ammonia-lyase (PAL) and peroxidase activity in brown rust infected tissues of Pakistani wheat cultivars	Pakistan Journal of Botany	-	46 (3): 1101-1107
39.	Ismail, M., M. I. Haque, A. Riaz, M. A. Abro and M. H. Khan	Pathogenic variability among different isolates of <i>xanthomonas axonopodis</i> pv. Citri	Pakistan Journal of Agriculture, Agriculture Engineering & Veterinary Sciences	-	30 (2): 187-194
40.	Rauf, C. A., F. Naz, I. Ahmad, I. U. Haque and	Management of black scurf of potato with effective microbes, biological	International Journal of Agriculture	-	In Press

	A. Riaz	potassium fertilizer(BPF), and <i>Trichoderma harzianum</i>	&Biology		
41.	Haider, A., A. Riaz, A. Sattarand M. Farooq	Incidence of Chir Pine (<i>Pinus roxburghii</i>) nursery diseases in Murree hills and their <i>in vitro</i> management	Pakistan Journal of Phytopathology	-	In Press
Department of Food Technology					
42.	Hayat, I., A. Ahmad, A. Ahmed, S. Khalil and M. Gulfraz	Exploring the potential of red kidney beans (<i>Phaseolus vulgaris</i> L.) to develop protein based product for food applications	The Journal of Animal and Plant Sciences	0.549	24(3): 860-868
Department of Entomology					
43.	Sheikh, U. A. A., M. Ahmad, M. Imran, M. NAsir, S. Saeed and I. Bodlah	Districution of bumblebee, <i>Bombus haemorrhoidalis</i> Smith, and its association with flora in lower northern Pakistan	Pakistan Journal of Zoology	0.40	46(4): 1045-1051
44.	Javed, H., J. Iqbal and Z. Mateen	Response of different groundnut cultivars <i>Arachis hypogaea</i> L. (Fabaceae Fabales) to aphid, aphid craccivora K. (Aphididae: Homoptera) interaction with local weather factors	Pakistan Journal of Zoology	0.40	46(1): 75-81
45.	Fatima, M., M. Tariq and A. Gulzar	Effect of triflumuron and diafenthuron on the haemocytes of American bollworm, <i>Helicoverpa armigera</i> (Lepidoptera: Noctuidae)	Pakistan Entomologist	-	36: 51-56
46.	Aziz, M. A., A. R. Shahzad, M. Naeem and G. Shabbir	Evaluation of different neem products in comparison with imidacloprid against different morphs of mustard aphid (<i>Lipaphis erysimi</i> kalt.) on canola crop	Asian Journal of Agriculture and Biology	-	2(3): 191-201
47.	Qasim, M., M. Naeem and I. Bodlah	Mosquito (Diptera: Culicidae) in Murree hills from Punjab Province of Pakistan	Pakistan Journal of Zoology	0.40	46(2): 523-529
48.	Farid Asif Shaheen	Critical temperature change as important factor of <i>callosobruchus chinensis</i> L. management in chickpea grains	Asian Journal of Agriculture and Biology	-	2(4): 258-262
Department of Soil Science & SWC					
49.	Malik, S. N., M. T. Siddique, R. Hayat, A. Khalid, K. M. Qureshi and H. Ahmad	Mapping K dynamics in apple orchards soils of Northern Punjab, Pakistan	Soil & Environment	-	32: 103-109
50.	Syed, S., M. I. A. Haq, Z. I. Ahmad, A. Razzaq and M. Akmal	Root exudates and leaf leachates of 19 medicinal plants of Pakistan exhibit allelopathic potential	Pakistan Journal of Botany	1.20	46(5): 1693-1701
51.	Ahmed, H., M. T. Siddique, S. Ali, N. A. Abbasi, A. Khalid and R. Khalid	Micronutrient indexing in the apple orchards of Northern Punjab, Pakistan using geo-statistics and GIS as diagnostic tools	Soil & Environment	-	32: 07-16
52.	Abid, J., T. Mahmood, A. Khalid, T. Siddique and I. Aziz	Optimization of pyrolysis yields of paper mulberry (<i>Broussonetia papyrifera</i>) and application of biochar product for the improvement of maize growth	International Journal of Agriculture and Biology	-	16: 929-934

53.	Ahmed, I., Y. Sin, J. Paek, M. Ehsan, R. Hayat, M. Iqbal and Y. H. Chang	Description of <i>Lysinibacillus pakistanensis</i>	International Journal of Agriculture & Biology	0.902	1560-8530; ISSN Online: 1814-9596
54.	Ahmed, M., M. A. Aslam, F. U. Hassan, M. Asif and R. Hayat	Use of APSIM to model nitrogen use efficiency of rainfed wheat	International Journal of Agriculture & Biology	0.902	ISSN Print: 1560-8530; ISSN Online 1814-9596
55.	Ullah, I., G. Jilani, K. S. Khan, M. S. Akhtar and M. Rasheed	Sulfur oxidizing bacteria from sulfur rich ecologies exhibit high capability of phosphorous solubilization	International Journal of Agriculture & Biology	0.902	16(3): 550-556
Department of Agricultural Extension and Communication					
56.	Mengal, A. A., M. U. Mallah, Z. U. Mirani and B. N. Siddiqui	Assessment of technology transfer process perceived by public and private extension field staff in Balochistan, Pakistan	Pakistan Journal of Agriculture, Agri. Engineering & Veterinary Sciences	-	30(1): 85-93
57.	Kiran, S., M. I. Yousuf, B. N. Siddiqui and T. Ehsan	Comparison of self-efficacy levels of the teachers of agricultural universities at Faisalabad and Rawalpindi	Academic Research International	-	5(5): 291-299

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Agronomy					
1.	Anser, M. R., M. A. Malik, M. Ansar and M. Arshad	Integrated practices for Canada thistle suppression in rainfed wheat under contrasting climatic conditions	SYKWAN	-	158(10)
2.	Ali, S., M. A. Malik, M. Ansar and R. Qureshi	Weed growth dynamics associated with rainfed wheat (<i>Triticum aestivum</i> L.)	International Journal of Plants Animals & Environment Sciences	0.297	4(2): 146-153
3.	Sher, A., M. Ansar, A. Munaf, A. Qayyum, M. F. Saeed and M. Irfan	Hydrocyanic acid and sugar content dynamics under nitrogen and sulphur application to forage sorghum cultivars	Turkish Journal of Field Crops	0.544	19(1): 46-52
4.	Sommer, R., C. Piggin, D. Feindel, M. Ansar, L. Delden, K. Shimonaka, J. Hajdibo, O. Douba, G. Estefan, A. Haddad, R. Haj-Abdo, A. Hajdibo, P. Hayek, Y. Khalil, A. Khoder and J. Ryan	Effect of zero tillage and residue retention on soil quality in the Mediterranean region of Northern Syria	Open Journal of Soil Science	-	4(3):109-125
5.	Mahmood, I., A. Razzaq, M. Rasheed, A. Qayyum and M. Ahmad	Employment of immature embryo culture for in vitro selection of drought tolerant somaclones of wheat	Bulgarian Journal of Agricultural Science	0.136	20: 155-161
6.	Baloach, N., M. Yousaf, W. P. Akhter, S. Fahad, B. Ullah, G. Qadir and Z. I. Ahmed	Integrated effect of phosphate solubilizing bacteria and humic acid on physiomorphic attributes of maize	International Journal of Current Microbiology and Applied Sciences	-	3(6): 549-554
7.	Shah, G. M., G. A. Shah, J. C. J. Groot, O. Oenema, A. S. Raza and E. A. Lantinga	Effect of storage conditions on losses and crop utilization of nitrogen from solid cattle manure	The Journal of Agricultural Sciences	2.891	Accepted
8.	Saba, B., M. Jabeen, T.	Treatment comparison efficiency of	International	-	65(3): 13-16

	Mahmood and I. Aziz	microbial amended agro-waste biochar constructed wetlands for reactive black textile dye	Conference on Food Engineering and Biotechnology		
Department of Horticulture					
9.	Saeed, T., I. Hassan, N. A. Abbasi and G. Jilani	Effect of gibberellic acid on the vase life and oxidative activities in senescing cut gladiolus flowers	Plant Growth Regulators	1.67	72(1): 89-95
10.	Anwar, M., H. A. Sahito, I. Hassan, N. A. Abbasi, H. A. Ahmed, M. A. Bhatti, A. Hussain, Z. Iqbal and A. H. Abro	Effect of pre harvest treatment of salicylic on growth and vase life of tuberose with aroma environment	Wudpecker Journal of Agricultural Research	-	3(2): 50-57
11.	Khan, M. I., S. A. Cheema, C. Shen, I. Hassan and Y. Chen	Phytotoxicity assessment of phenanthrene and pyrene in soil using two barley genotypes	Toxicological and Environmental Chemistry	0.723	96(1): 94-105
12.	Adnan, A., S. Asma, M. Tariq, L. Asia, T. Saima, S. J. Butta and I. Hassan	Physico-chemical and antimicrobial assessment of honey of <i>Apis dorsata</i> from different geographical region of Pakistan	International Journal of Agricultural Science Research	0.583	3(2): 25-30
13.	Saleem, B. A., I. Hassan, Z. Singh, A. U. Malik and M. A. Pervez	Comparative changes in the rheological properties and cell wall metabolism in rind of healthy and creased fruit of Washington Navel and Navelina sweet orange (<i>Citrus sinensis</i> L.)	Australian Journal of Crop Sciences	1.63	8(1): 62-70
Department of Plant Breeding & Genetics					
14.	Wattoo, F. M., M. Saleem and M. Sajjad	Identifications of Potential F1 hybrids in Maize response to water deficit condition	American Journal of plant selection	0.36	2014:5
15.	Tariq, A.S., Z. Akram, G. Shabbir, K.S. Khan, T. Mahmood and M.S. Iqbal	Heterosis and Combining Ability Evaluation for quality Traits in Forage Sorghum (<i>Sorghum bicolor</i> L.)	Sarao Journal of Plant Breeding	-	46(2):174-182
16.	Hussain, T., M.A. Tariq, Z. Akram, J. Iqbal, A. Rehman and G. Rabbani	Estimation of some genetic parameters and interrelationship of attributes in certain exotic lines of wheat (<i>Triticum aestivum</i> L.)	Journal of Biology, Agriculture & Healthcare	-	4(2):48-52
17.	Sajjad, M., S. H. Khan and R. M. Rana.	Family and/or Friends? Gene Mapping at Crossroads.	American Journal of Plant Sciences	-	5(1):112-118
18.	Malik, S.R., G. Shabbir, M. Zubir, S.M. Iqbal and A. Ali	Genetic diversity analysis of morpho-genetic traits in Desi chickpea (<i>Cicer arietinum</i> L.)	International Journal of Agriculture Biology	-	16(5): 956-960.
Department of Plant Pathology					
19.	Sultana, K., M. U. Shahbaz, G. Irshad and M. A. Iqbal	Addition of hypomyceteous fungi to the hypomycetes of Pakistan	Communication Scientiac	-	5(3): 356-360
20.	Mukhtar, T., M. A. Hussain, M. Z. Kayani and M. N. Aslam	Evaluation of resistance to root-knot nematode (<i>Meloidogyne incognita</i>) in okra cultivars	Crop Protection	1.539	56: 25-30
21.	Iqbal, U and T. Mukhtar	Morphological and pathogenic variability among <i>Macrophomina phaseolina</i> isolates associated with	The Scientific World Journal	1.723	Article ID 950175, 9 pages http://dx.Doi.org/-10.1155/

		mungbean (<i>Vigna radiate</i> L.) Wilczek from Pakistan			2014/- 950175
22.	Nasir, M., S. M. Mughal, T. Mukhtar and M. Z. Awan	Powdery mildew of mango: a review of ecology, biology, epidemiology and management	Crop Protection	1.539	64: 19-26
23.	Mehboob, N., M. J. Asad, M. Asgher, M. Gulfraz, T. Mukhtar and R. T. Mahmood	Exploring thermophilic cellulolytic enzyme production potential of <i>Aspergillus fumigates</i> by the solid-state fermentation of wheat straw	Applied Biochemistry and Biotechnology	1.893	172(7): 3646-3655
24.	Batool, M., T. Mukhtar and H. Butt	First report of <i>Diplocarpon mespili</i> on loquat (<i>Eriobotrya japonica</i>) in Pakistan	Austrian Journal of Mycology	-	23:143-147
25.	Haq, M. I. U., M. I. Tahir, R. Hayat, R. Khalid, M. Ashfaq, M. Jamil and Z. Ali	Bio-efficacy of rhizobacterial bacterial isolates against root infecting fungal pathogens of chickpea	Journal of Plant Pathology & Microbiology	1.20	Accepted

Department of Food Technology

26.	Mahmood, T., T. Masud and A. Sohail	Some probiotic and antibacterial properties of <i>Lactobacillus acidophilus</i> cultured from dahi a native milk product	International Journal of Food Science and Nutrition	1.257	65(5):582-588
27.	Ali, S., T. Masud, K. S. Abbasi, T. Mehmood and A. Ali	Some physicochemical and functional attributes of six indigenous apricot genotypes from Gilgit Baltistan, Pakistan	International Journal of Biosciences	0.032	4(2): 221-231
28.	Tariq, S., T. Masud, S. Tariq and A. Sohail	Black seed (<i>Nigella sativa</i>) possess bioactive compounds act as anti-helicobacter pylori agent	World Journal of Pharmaceutical Sciences	1.877	2(2): 203-209
29.	Ali, A., T. Masud, S. Ali, K. S. Abbasi and S. Hussain	Influence of water soluble coatings on postharvest quality of sweet cherry (<i>Prunus avium</i> L.) grown in Gilgit Baltistan	International Journal of Biosciences	0.032	4(1): 252-263
30.	Akram, A., A. Sohail, T. Masud, A. Latif, S. Tariq, S. J. Butt and I. Hassan	Physico-chemical and antimicrobial assessment of honey of <i>Apis dorsa</i> from different geographical regions of Pakistan	International Journal of Agricultural Science and Research	4.359	3(2): 025-030
31.	Adeel, R., A. Sohail and T. Masud	Characterization and antibacterial study of pumpkin seed oil (<i>Cucurbita pepo</i>)	Life Sciences Leaflets	1.22	49: 53-64
32.	Masood, M., T. Masud, S. Tariq and A. Sohail	The effect of casein hydrolysate formed by probiotic culture on cholesterol reduction	Life Sciences Leaflets	1.22	49: 116-127
33.	Muhammad, A. B., Z. Mehmood, M. F. H. Munhis, H. J. Chaudhary, T. Masud, T. Mehmood, M. I. Haider and M. Imran	Comparative biodiesel production potential of food waste oils as renewable energy source	Asian Journal of Chemistry	0.355	26(2): 527-530
34.	Hayat, I., A. Ahmad, T. Masud and A. Ahmed	Nutritional and health perspectives of beans (<i>Phaseolus vulgaris</i> L.) an overview	Critical Reviews in Food Science and Nutrition	5.548	54: 580-592
35.	Randhawa, M. A., F. M. Anjum, M. R. Asi, A. Ahmed and H. Nawaz	Field incurred and endosulfan residues in fresh and processed vegetables and dietary intake assessment	International Journal of Food Properties	0.906	17: 1109-1115
36.	Ahmed, A., I. Hayat, S.	Mechanisms involved in the therapeutic	International Journal of	0.906	17(6): 1332-1354

	Arif, T. Masud and N. Khalid	effects of soybean (<i>Glycine max</i>)	Food Properties		
37.	Ahmed, A., A. Ahmad, N. Khalid, A. David, M. A. Sandhu, M. A. Randhawa and H. A. R. Suleria	A question mark on iron deficiency in 185 million people of Pakistan: its outcomes and prevention	Critical Reviews in Food Science and Nutrition	5.548	54: 1617-1635
38.	Khalid, N., A. Ahmad, S. Khalid and M. Irfan	Mineral composition and health functionality of zamzam water: a Review	International Journal of Food Properties	0.906	17(3): 661-677
39.	Ahmed, I., A. Ahmed, K. Naseem and T. Mehmood	Optimization of tempering conditions of bread wheat grown in Barani area of Punjab	Life Science Leaflets	1.221	50: 131-144
40.	Ahmed, A., N. Khalid, A. Ahmad, N. A. Abbasi, M. S. Z. Latif and M. A. Randhawa	Phytochemicals and biofunctional properties of buck wheat: A review	Journal of Agricultural Science	2.891	152(3): 349-369
41.	Nadeem, M., F. M. Anjum, M. R. Khan, M. A. Shabbir, M. Saeed and A. Ahmed	Immunological appraisal of wheat varieties in relation to chapatti making characteristics	Food and Agricultural Immunology	0.986	Accpeted
Department of Entomology					
42.	Dow, R. A., A. Zia, M. Naeem and M. A. Rafi	Calicnemia fortis sp. Nov. from Pakistan (Odonata: Zygoptera: Platycnemididae)	Zootaxa	-	3869(3): 338-342
43.	Sattar, A., M. Naeem and E. U. Haq	Efficacy of plant extracts against subterranean termites i.e., <i>Microtermes obesi</i> and <i>Odontotermes lokanandi</i> (Blattodea: Termitidae)	Journal of Biodiversity, Bioprospecting and Development	-	1(2): 2-7
44.	Siddique, B. and M. Ahmad	Impact of organochlorines on endocrine system : a review	International Journal of Advances in Biology	-	1(1): 1-11
45.	Hassan, S., M. Ahmad and M. Aslam	Assessment of <i>Sitotroga cerealella</i> losses in different sorghum varieties under controlled conditions	Archives of Phytopathology and Plant Protection	-	47(8): 993-999
46.	Aqueel, M. A., C. M. Collins, A. M. Raza, S. Ahmad, M. Tariq and S. R. Leather	Effect of plant nutrition on aphid size, prey consumption, and life history characteristics of green lacewing	Insect Science	1.514	21: 74-82
47.	Bushra, S., M. Tariq, M. Naeem and M. Ashfaq	Efficacy of neem oil and turmeric powder against <i>Sitobion avenae</i> and <i>Rhopalosiphum padi</i>	International Journal of Biosciences	-	5: 439-448
48.	Khichi, T. A. A., F. Jalal, M. Tariq, N. A. Qureshi, S. Sultana and F. Jabeen	The study of lifecycle of three pardosa species viz., <i>P. birmanica</i> , <i>P. leucopalpis</i> and <i>P. oakleyi</i> under laboratory conditions	International Journal of Biosciences	-	5: 151-157
49.	Khichi, T. A. A., F. Jalal, N. A. Qureshi and M. Tariq	The predatory efficacy of three Pardosa spider species against American bollworm (<i>Helicoverpa armigera</i>)	International Journal of Biosciences	-	5: 102-110
50.	Tariq, M., S. Bushra, M. U. Hassan, U. Maqbool, M. R. Asi, A. Gulzar and M. F. Iqbal	Residual estimation of isoproturon, atrazine and grain protectants in stored wheat grains	International Journal of Computational Biology, Informatics and Control	-	1: 9-25
51.	Bushra, S., and M. Tariq	How aphid alarm pheromone can control aphids: a review	Archives of Phytopathology and Plant Protection	-	47: 1563-1573

52.	Raza, M. F., M. A. Khan, M. Tariq, W. Abbas, B. Atta and M. J. Hussain	Population dynamics of thrips (<i>Thrips tabaci</i>) and ladybird beetle (<i>Coccinella septempunctata</i>) on traditional and transgenic cultivar of cotton	Bulgarian Journal of Agricultural Sciences	0.136	Accepted
Department of Soil Science & SWC					
53.	Wang, C., T. Wang, W. Li, J. yan, Z. Li, R. Ahmad, S. K. Herath and N. Zhu	Adsorption of DNA by willow wood biochars produced at different pyrolysis temperatures.	Biology and Fertility of Soils	3.40	50: 87-99
54.	Mahmood, S., A. Khalid, M. Arshad and R. Ahmad	Effect of trace metals and electron shuttle on simultaneous reduction of reactive black-5 azo dye and hexavalent chromium in liquid medium by <i>pseudomonas</i> sp.	Chemosphere	3.50	http://dx.doi.org/10.1016/j.chemosphere.2014.10.084
55.	Iqbal, T., G. Jilani, M. Rasheed and M. T. Siddique	Effect of P-enriched compost application on soil and plants	International Journal of Biosciences	-	5(4): 133-140
56.	Akhtar, M. S., M. Imran, A. Mehmood, M. Memon, S. Rukh and G. S. Kiani	Apatite loss in Pothwar loess plain (Pakistan) fits a simple linear reservoir model	Pedosphere	1.379	24(6): 763-775
57.	Rukh, S., M. S. Akhtar, M. Memom, A. Mehmood and M. Imran	Distribution of arsenic forms in decomposed solidwaste	Asian Journal of Chemistry	0.36	26: 6761-6768
58.	Tim, H. M., R. Hayat, R. Roberts, S. J. Powers and P. R. Hirsch	Assessment of core and accessory genetic variation in rhizobium leguminosarum symbiovar trifolii strains from diverse locations and host plants using PCR-based methods	Letters in Applied Microbiology	1.749	59: 238-246
59.	Ahmed, I., M. Ehsan, Y. Sin, J. Paek, N. Khalid, R. Hayat and Y. H. Chang	<i>Sphingobacterium pakistanensis</i> sp. nov., a novel plant growth promoting rhizobacteria isolated from rhizosphere of <i>Vigna mungo</i>	Antonie van Leeuwenhoek	2.137	105(2): 325-333
60.	Khalid, R., Y. J. Zhang, S. Ali, X. H. Sui, X. X. Zhang, U. Amara, W. X. Chen and R. Hayat	Rhizobium pakistanensis sp. nov., isolated from groundnut (<i>Arachis hypogaea</i>) nodules grown in rainfed Pothwar, Pakistan	Antonie van Leeuwenhoek	2.137	DOI 10.1007/s10482-014-0326-x
61.	Ali, A., R. Khalid, S. Ali, Z. Akram and R. Hayat	Characterization of plant growth promoting rhizobacteria isolated from Chickpea (<i>Cicer arietinum</i>)	British Microbiology Research Journal	-	6(1): 32-40
62.	Jin, Z. J., L. Q. Li, X. Y. Liu, G. X. Pan, Q. Hussain and Y. Z. Liu	Impact of long-term fertilization on community structure of ammonia oxidizing and denitrifying bacteria based on amoA and nirK genes in a Rice paddy from Tai Lake Region, China	Journal of Integrative Agriculture	0.625	13: 2286-2298
63.	Abbas, Z., M. Akmal, K. S. Khan, F. U. Hassan	Effect of Buctril super (Bromoxynil) Herbicide on soil microbial biomass and bacterial population	Brazilian Archives of Biology and Technology	0.452	57(1): 9-14
64.	Abbas, Z., M. Akmal, K. S. Khan, F. U. Hassan	Impacts of long-term application of buctril super (bromoxynil) herbicide on microbial population, enzymes activity, nitrate nitrogen, Oslen-P total organic carbon in soil	Archives of Agronomy and Soil Science	0.515	DOI:10.1080/03650340.2014.944512

65.	Hassan, A., S. S. Ijaz, R. Lal, S. Ali, Q. Hussain, M. Ansar and M. S. Baloch	Depth distribution of soil organic carbon fractions in relation to tillage and cropping sequences in some dry lands of Punjab, Pakistan	Land Degradation and Development	2.058	Accepted
66.	Bashir, K., S. Ali, S. S. Ijaz, M. A. Malik and I. Ahmed	Soil physical properties and wheat yield as influenced by varying levels of different organic materials	International Journal of Plant & Soil Science	-	4(5): 445-454
67.	Hassan, A., S. S. Ijaz, R. Lal, S. Ali, M. Ansar, Q. Hussain and M. S. Baloch	Active soil organic carbon fractions and aggregate stability affected by minimum tillage and crop rotations on a marginal dryland soil in Punjab, Pakistan	International Journal of Plant & Soil Science	-	4(4): 326-337
68.	Saeed, T., I. Hassan, N. A. Abbasi and G. Jilani	Effect of gibberellic acid on the vase life and oxidative activities in senescing cut gladiolus flowers	Plant Growth Regulation	1.625	72(1): 89-95
69.	Mehmood, Y., M. Rasheed, F. U. Hassan, G. Jilani and A. Anwar	Optimization of phosphorus fortification in compost and its evaluation for maize production	Sylwan	0.295	158(11): 289-326
Department of Agricultural Extension & Communication					
70.	Yaseen, M., B. N. Siddiqui, M. Ali and M. Ameen	Role of private sector in dissemination of agricultural information among cotton growers in Punjab Pakistan	University Journal of Agricultural Research	-	2(3): 89-92
71.	Fatima, I., K. Naeem, B. N. Siddiqui, M. I. Yousuf, L. Khalid, S. Bano and M. Aslam	Food security situation of small farmers in district Rawalpindi	International Journal of Advanced Research in Biological Sciences	0.658	1(8): 205-211
72.	Shah, N. A., N. Khan, R. Abbas, M. H. Raza, B. Shahbaz, B. N. Siddiqui, F. U. Khan and S. Q. Memon	Milk production and supply chain in peri-urban areas of Jhang, Pakistan	American Journal of Experimental Agriculture	-	6(1): 45-50
73.	Abbas, R., B. Shahbaz, N. A. Shah, N. Khan and B. N. Siddiqui	Cotton leaf curl virus disease in district Jhang, Punjab, Pakistan	Asian Journal of Agriculture Extension Economics & Sociology	-	6(1): 95-100

FACULTY OF SCIENCES

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Botany					
1.	Akhtar S., N. Bangash, R. Asghar, Mubashrah Munir and Nauman Khalid.	Allelopathic Assessment Of Selected Invasive Species Of Pakistan	Pakistan Journal of Botany	1.207	46(5): 1709-1713
2.	Gulfraz, M., D. Ahamd, M.S. Ahmad, R. Qureshi, R.T. Mahmood, N. Jabeen and K.S. Abbasi	Effect of leaf extracts of <i>Taraxacum officinale</i> on CCl ₄ induced Hepatotoxicity in rats, <i>in vivo</i> study	Pakistan Journal of Pharm. Sci.	0.95	27(4): 825-829
3.	Ilyas M., N. Ilyas, M. Arshad, A. G. Kazi, A. M. Kazi, A. Waheed	QTL mapping of Wheat Doubled Haploids for Chlorophyll content and chlorophyll fluorescence kinetics under drought stress imposed at anthesis stage.	Pakistan Journal of Botany	1.207	46 (5) :1889-1898
4.	Maqsood, A., A. Rehman, I. Ahmad, M. Nafees, I. Ashraf, R. Qureshi, M. Jamil, M. Rafay and T. Hussain	Physiological attributes of fungi associated with stem end rot of mango (<i>Mangifera indica</i> L.) cultivars in postharvest fruit losses	Pakistan Journal of Botany	1.207	46(5): 1915-1920.
5.	Qureshi, R., H. Shaheen, M. Ilyas, M. Wasim and M. Munir	Phytodiversity and plant life of Khanpur Dam, Khyber Pakhtunkhwa, Pakistan.	Pakistan Journal of Botany	1.207	46(3): 841-849
6.	Shaheen, H., R. Qureshi, A. Akram, M. Gulfraz and D. Potter	A preliminary floristic checklist of Thal Desert Punjab, Pakistan.	Pakistan Journal of Botany	1.207	46(1): 13-18
7.	Wariss, H.M., S. A. Pirzada, K. Alam, S. Anjum and R. Qureshi	Flora of Lal Suhanra National Park, Bahawalpur, Punjab, Pakistan	Pakistan Journal of Botany	1.207	46(4): 1331-1341
8.	Yasmeen F., N. I. Raja, M. Hussain, N. Taj, S. K. Chaudhari.	Effect of spring and autumn sowing on morphological attributes of sweet corn genotypes.	International Journal of Biosciences	0.45	5(1): 29-36
Department of Zoology/Biology					
9.	Ansari, M. S., B. A. Rakha, S. M. H. Andrabi, N. Ullah, R. Iqbal, W. V. Holt and S. Akhter	Thioglycol in extender improves the post-thaw quality of buffalo (<i>Bubalus bubalis</i>) bull spermatozoa	Journal of Animal & Plant Sciences	0.549	24: 1256-1259
10.	Shoaib, M., N. Ahmad, M. Ahmad, I. Ahmad, S. Iqbal and S. Akhter	Effects of Storage Duration on the Quality and DNA Integrity of Nili-Ravi Bull Spermatozoa Frozen and Stored in Liquid Nitrogen	Pakistan Veterinary Journal	1.392	34: 205-208.
11.	Zia, U., M. S. Ansari, S. Akhter and B. A. Rakha	Breeding biology of red vented bulbul (<i>pycnonotus cafer</i>) in the area of	Journal of Animal&Plant	0.549	24: 24: 656-659

		rawalpindi/Islamabad	Sciences		
12.	M. S. Ansari, B. A. Rakha, R. Iqbal and S. Akhter	Effect of glutathione in extender on the Freezability of Sahiwal bull spermatozoa.	Pakistan Journal of Zoology	0.4	46: 17-21
13.	Akhter, S., B. A. Rakha, R. Iqbal, M. S. Ansari	Effect of bovine serum albumin on motility, plasmalemma, viability and chromatin integrity of buffalo bull spermatozoa	Pakistan Journal of Zoology	0.4	46: 115-120
14.	Akhter, S., M. S. Ansari, B. A. Rakha, S. M. H. Andrabi, M. Qayyum and N. Ullah	Effect of Fructose in Extender on Fertility of Buffalo Semen. Short Communication. Pakistan Journal of Zoology	Pakistan Journal of Zoology	0.4	46: 279-281
15.	Jabeen, S., M. Anwar, S. M. H. Andrabi, A. Mehmood and M. Shahab	Determination of Ovsynch and CIDR Efficiency for Estrus Synchronization by Conception Rate in Nili Ravi Buffaloes during Low and Peak Breeding Seasons	Pakistan Veterinary Journal	1.392	Accepted
16.	Mushtaq, M., A. R. Kayani, M. S. Nadeem and M. A. Beg	Distribution Pattern of Commensal Rodents in Shops of Urban Rawalpindi, Pakistan	Pakistan Journal of Zoology	0.40	46(6): 1585-1589
17.	Iqbal, M. N., A. A. Anjum, K. Muhammad, M. A. Ali, M. Nawaz, S. Akhter, M. Irfan	Prevalence of hernia in relation to various risk factors in Narowal, Pakistan	Science Letters	--	3(1): Online first 2014039-SL
18.	Kanwal, S., and T. Mahmood	Phylogenetic analysis of HIV-1 strains across the globe: A computational analysis based on <i>env</i> and <i>gag</i> genes	Pakistan Journal of Clinical and Biomedical Research	-	1 (1): 35-38
19.	Ali, M. R., M. Afzal, M. F. Khan, S.M.H.M. Naqvi and S. Akhtar	Dietary Protein Requirement of Giant River Catfish, <i>Sperata seenghala</i> (Sykes), Determined Using Diets of Varying Protein Level	Pakistan Journal of Nutrition	-	13: 151-156.
20.	Irum, S., M. Qayyum, K. Donskow-Lysoniewska, M. Zia-ul-Haq and M. J. Stear	Genetic Variability in β -tubulin-1 in Benzimidazole Resistant Haemonchus contortus from Sheep in North-East Punjab, Pakistan.	Pakistan Journal of Zoology	0.44	46(2), 431-435.
21.	Mufti, S., K. Afshan, I. A Khan, Y. Zafar, S.S. R Rizvi, F. Nazir and Mazhar Qayyum	Genetic Characterization of Fasciola Samples from Bovine Hosts in Pakistan by Sequences of Ribosomal Internal Transcribed Spacer Regions	Pakistan Veterinary Journal	1.392	34(3): 361-366.
Department of Biochemistry					
22.	Akhtar, W., A. Rasheed, Z. K. Shinwari, S. M. S. Naqvi and T. Mahmood	Genetic characterization of different Pakistani date palm varieties	Pakistan Journal of Botany	1.123	46(6): 2095-2100
23.	Shamim, F., S. M. S. Naqvi, H. R. Athar and A. Waheed	Screening and selection of tomato genotypes/cultivars for drought tolerance using multivariate analysis	Pakistan Journal of Botany	1.123	46(4): 1159-1164
24.	Mehmood, S., M. Gulfraz, M. S. Tahir, M. S. Rehman, T. Aqil and T. Mehmood	Screening and selection of sweet sorghum varieties for bio ethanol production	Pakistan Journal of Botany	1.123	46(3): 1115-1120

25.	Janjua, S., S. Younis, F. Deeba and S. M. S. Naqvi	High efficiency DNA transformation protocol for <i>Escherichia Coli</i> using combination of physic-chemical methods	International Journal of Agriculture & Biology	0.902	16: 132-138
26.	Anjum, S., A. Azhar, M. Tariq, S. M. Baig, H. J. Bolz, S. M. S. Naqvi and G. K. Raja	GJB2 gene mutations causing hearing loss in consanguineous Pakistani families	Pakistan Journal of Life and Social Sciences	-	Accepted
27.	Gulfraz, M., D. Ahmad, M. S. Ahmad, R. Qureshi, R. M. Tahir, N. Jabeen and K. S. Abbasi	Effect of leaf extracts of taraxacum officinale on CC14 induced Hepatotoxicity in rats, in vivo study	Pakistan Journal of Pharmaceutical Sciences	0.95	27(4): 825-829
28.	Ullah, S., S. Tabassam, M. A. Anwar, M. Gulfraz and M. S. Ahmad	Optimization of extraction methods for antioxidants from <i>Polygonum amplexicaule</i>	International Conference of Biochemical and Chemical Sciences at UAF	-	Oral Presentation
29.	Batool, S., M. Gulfraz, A. Akram, S. M. S. Naqvi, I. U. Haq, B. Mirza and M. S. Ahmad	Evaluation of antioxidant potential and Hplc based identification of phenolics in polygonum amplexicaule extract and its fractions	Pakistan Journal of Pharmaceutical Sciences	0.95	Accepted
30.	Tahira, I., M. Saqlain, A. Mahmood, N. Q. Hanif and G. K. Raja	Study of β -Lactoglobulin milk protein variants in buffalo	Pakistan Journal of Zoology	0.400	46(2): 549-552

Department of Economics and Agri. Economics

31.	Asad, S., A. Saboor, I. A. Baig, S. Ayaz and N. Mahmood	Impact of resource management on the development of arid area productivity and livelihood: a case study of Rawalpindi District	Scholarly Journal of Agricultural Science	-	4(2): 90-96
32.	Akhtar, S., A. Saboor, F. H. Sahi and A. Khan	Poverty dynamics of rural Punjab	Journal of Animal and Plant Sciences	0.549	25(2):

Department of Mathematics & Statistics

33.	Hanif, M	Linear estimation of scalar diffusion models by using asymmetric kernel	Pakistan Journal of Statistics	0.286	30(1): 1-20.
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INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Botany					
1.	Ali, A., M. Arshad, S. M. S. Naqvi, M. Ahmed, H. Sher, S. Fatima, A. G. Kazi, A. Rasheed, A. Mujeeb-Kazi	Exploitation of Synthetic- derived Wheat's through osmotic stress responses for drought tolerance improvement.	Acta Physiol Plant (Springer)	1.305	36: 2453-2465
2.	Amjad, M. S., M Arshad, A. Rashid, S.	Examining relationship between environmental gradients and lesser	Asian journal of Tropical Medicine	0.926	7(Suppl 1): S610-S616.

	K. Chaudhari, N. Z. Malik and F. Akrim.	Himalyan forest vegetation of Nikyal valley, Azad Jammu and Kashmir using ordination analysis.	(Elsevier)		
3.	Amjad, M. S., M. Arshad, S. K. Chaudhari.	Structural diversity, its components and regenerating capacity of lesser Himalayan forests vegetation of Nikyal valley District Kotli (A.K), Pakistan.	Journal of Tropical Medicine (Elsevier)	0.926	7(Suppl 1): S454-S460.
4.	Arshad M., M. Ahmad, E. Ahmad, A. Saboor, A. Abbas, and S. Sadiq	An ethnobiological study in Kala Chitta hills of Pothwar region, Pakistan: multinomial logit specification	Journal of Ethnobiology and Ethnomedicine	2.42	10 (13):1-17
5.	Bano, A., M. Ahmad, T. B. Hadda, A. Saboor, S. Sultana, M. Zafar, M. P. Khan, M. Arshad and M. A. Ashraf	Quantitative ethanomedicinal study of plant used in Sakardoo valley at high altitude of Karakoral Himalyan range	Journal of Ethnobiology and Ethnomedicine	2.42	10 (43):1-17
6.	Chaudhari, S. K., M. Arshad, G. Mustafa, S. Fatima, M. S. Amjad and F. Yasmin	Foliar epidermal anatomy of grasses from Thal Desert, District Khushab Pakistan.	International Journal of Biosciences	0.076	4(8): 62-70
7.	Chaudhari, S. K., Y. Bibi and M. Arshad	<i>Podophyllum hexandrum</i> : An endangered medicinal plant from Pakistan.	Pure and Applied Biology	0.365	3(1): 19-20
8.	Fatima, S. and M. Arshad	Mapping quantitative trait loci of morphological attribute using drought mapping population 5 (Opata x SH349) under drought stress.	International Journal of Biosciences	0.076	4(12):134-143
9.	Fatima, S., A. Akram, M. Arshad, S. K. Chaudhari, M. S. Amjad and H. Qureshi.	Effect of biological potassium fertilization (BPF) on the availability of phosphorus and potassium to maize (<i>Zea mays</i> L.) under controlled conditions.	International Journal of Biosciences	0.076	5(8):25-36
10.	Fatima, S., M. Arshad and R. Qureshi	QTL mapping for physiological maturity in synthetic hexaploid wheat (<i>Triticum aestivum</i> L.) under drought stress. <i>Pure and</i>	Applied Biology	0.365	3(1): 25-31
11.	Fatima, S., M. Arshad, S. K. Chaudhari, A. Ali, M. S. Amjad and R. kousar	Utilization of synthetics for drought tolerance in wheat <i>Triticum aestivum</i> L.	International Journal of Biosciences	0.076	5(1):104-112
12.	Qureshi, H., M. Arshad and Y. Bibi	Invasive flora of Pakistan A Critical Analysis.	International journal of Bioscience	0.076	4 (1): 407-424
13.	Sabir, S., M. Arshad, K. Zahara, S. Tabassum and S. K. Chaudhari	Pharmacological attributes and nutritional benefits of tea tree oil.	International Journal of Biosciences	0.076	5(2):80-91
14.	Sabir, S., M. Arshad, S. Asif and S. K. Chaudhari	An insight into medicinal and thraupeutic potential of <i>Silybum marianum</i> (L) Gaertn.	International Journal of Biosciences	0.076	4(11):104-115
15.	Shaheen, H., R. Qureshi, A. Akram and M. Gulfraz	Inventory of medicinal flora from Thal Desert, Punjab, Pakistan.	Afr. J. Tradit. Complement. Altern. Med.	0.56	11(3): 282-290
16.	Zahara, K., S. Tabassum, S. Sabir, M. Arshad, R. Qureshi, M. S. Amjad and S. K Chaudhari	A review of therapeutic potential of <i>Saussurea lappa</i> -An endangered plant from Himalaya	Asian journal of Tropical Medicine (Elsevier)	0.926	7(Suppl 1): 60-69.

17.	Mashwani, Z. U. R., M. Khan, M. Ahmad.	Potential for Pakistani traditional medicinal plants to combat diabetes.	Journal of Tradit Chin Med.	0.59	34(4):488-90.
18.	Nayyar, B. G., S. Akhund and A. Akram,	A review: management of <i>Alternaria</i> and its mycotoxins in crops. Scho.	Journal of Agricultural Sciences	1.3725	4(7): 432-437
19.	Nayyar, B. G., A. Akram, S. Akhund and M. Rafiq,	Seed Viability Test and Pathogenecity Assessment of Most Prevalent Fungi Infecting <i>Sesamum indicum</i> L.	Journal of Pharm. & Bio. Sc. (IOSR-JPBS)	1.12	9(5): 21-23
Department of Zoology/Biology					
20.	Nadeem, M. S., T. Mahmood and M. M. U. Hassan	Breeding success of Stone Curlew <i>Burhinus oedicnemus</i> in Nag Valley (1999-2001), Kharan, Pakistan.	Turkish Journal of Zoology	0.585	38(4): 510-514.
21.	Noureen, S., M. S. Nadeem, M. A. Beg and M B. Anwar	Seasonal variation in the reproductive tract of the Indian flying fox, <i>Pteropus giganteus</i> (Brünnich, 1782).	Animal Biology	0.636	64(4):343-364
22.	Qadeer, S., M. A. Khan, M. S. Ansari, B. A. Rakha, R. Ejaz, A. U. Husna, M. Ashiq, R. Iqbal, N. Ullah and S. Akhter	Evaluation of Antifreeze Protein III for Cryopreservation of Nili-Ravi (<i>Bubalus bubalis</i>) Buffalo Bull Sperm	Anim. Reprod. Sci.	1.581	148: 26-31
23.	Ali, S., I. Khan, Q. Ali, S. U. Khan, Z. S. Mirza and S. Akhter	Isolation and characterization of <i>Aeromonas sobria</i> in <i>Catla catla</i> (Thaila) affected with hemorrhagic septicemia.	B. Eur. Assoc. Fish Pat	0.565	34: 35-42
24.	Ejaz, R., M. S. Ansari, B. A. Rakha, N. Ullah, A. U. Husna, R. Iqbal and S. Akhter.	Arachidic acid in extender improves post-thaw parameters of cryopreserved Nili-Ravi buffalo bull semen	Reproduction in domestic animal	1.177	49: 122-125
25.	Ali, S., Q. Ali, F. Melzer, I. Khan, S. Akhter, H. Neubauer S. M. Jamal	Isolation and identification of bovine <i>Brucella</i> isolates from Pakistan by biochemical tests and PCR	Tropical Animal Health and Production	0.97	46:73-78
26.	Akram, F., M. Saddique, T. Mehmood, M. Z. Anjum, S. Qasim, J. Khalid, D. Shahwar and S. Andleeb	Threats to red jungle fowl (<i>Gallus gallus murghi</i>) in Deva Vatala National Park, District Bhimber, Azad Jammu and Kashmir, Pakistan	Annual Research and Review in Biology	-	DOI: 10.9734/ARRB/2014/9596
27.	Qasim, S., F. Akram, J. Khalid, A. Arshad, D. Shahwar, S. Andleeb and M. Z. Anjum	Total cholesterol and triglycerides in unmarried males and females of Azad Jammu and Kashmir, Pakistan	Annual Research and Review in Biology	-	4(24):4084-90
28.	Sabir, M., R. M. Baig, K. Ali, I. Mahjabeen, M. Saeed, M. A. Kayani	Retinoblastoma (RB1) pocket domain mutations and promoter 5 hyper-methylation in head and neck cancer	Cellular Oncology	2.124	37 (3), 203-213
29.	Wahid, M., I. Mahjabeen, R. M. Baig, M. A. Kayani	Expression of CYP1A1 and GSTP1 in Human Brain Tumor Tissues in Pakistan	Asian Pac J Cancer Prev	1.5	14 (12), 7187-7191
30.	Kanwal, S., and T. Mahmood	Hepatitis C virus resistance to interferon therapy: an alarming situation	Central European Journal of Biology	0.633	9 (12): 1155-1167
31.	Fayyaz, S., I. Yaylim, S. Turan, S. Kanwal, A. A. Farooqi	Hepatocellular carcinoma: targeting of oncogenic signaling networks in TRAIL resistant cancer cells	Molecular Biology Reports	1.958	10.1007/s11033-014-3577-8
32.	Kanwal, S., and T. Mahmood	Occurrence of Genetic Modifications in Core, 5'UTR and NS5b of HCV Associated with Viral Response to Treatment	Virology Journal	2.09	Accepted
33.	Ali, K., I. Mahjabeen, M. Sabir, R. M. Baig, M. Faheem, M. A. Kayani	Germline Variations of Apurinic/Apyrimidinic Endonuclease 1 (APEX1) Detected in Female Breast Cancer Patients	Asian Pac J Cancer Prev	1.5	Accepted
34.	Qureshi, Z., I. Mahjabeen, R. M. Baig, M. A. Kayani	Correlation between Selected XRCC2, XRCC3 and RAD51 Gene Polymorphisms and Primary Breast Cancer in Women in	Asian Pac J Cancer Prev	1.5	Accepted

		Pakistan			
35.	Kayani, M. A., S. Khan, R. M. Baig, I. Mahjabeen	Association of RAD 51 135 G/C, 172 G/T and XRCC3 Thr241Met Gene Polymorphisms with Increased Risk of Head and Neck Cancer	Asian Pac J Cancer Prev	1.5	Accepted
36.	Arshad, A., X. Chen, Z. Cong, H. Qing, and Y. Deng	TRPC1 protects dopaminergic SH-SY5Y cells from MPP1, salsolinol, and N-methyl-(R)-salsolinol-induced cytotoxicity	Acta Biochim Biophys Sin (ABBS)	2.1	DOI: 10.1093/abbs/gmt127
37.	Arshad, A., X. Gu, and M. Arshad	RNF13 protein regulates endoplasmic reticulum stress induced apoptosis in dopaminergic SH-SY5Y cells by enhancing IRE1a stability	Journal of Receptor and Signal Transduction	1.6	doi: 10.3109/10799893.2013.863920
38.	Mustafa, I., R. M. K. Shabbir, M. Subhani, I. Ahmad, A. Raza, S. Jamil, H. Muqaddas, R. G. Shabbir, A. Ghani, T. Mahmood, M. Aslam, M. R. Khan, S. Asif, I. U. Malik, A. Bakar, M. Raza, M. A. Aqeel, M. Qayyum, A. Waqas and H. Ahmed	Seasonal Activity of Tick Infestation in Goats and Buffalo of Punjab Province (District Sargodha), Pakistan.	Kafkas Univ Vet Fak Derg,	0.34	20 (5): 655-662
39.	Afshan, K., C. Fortes-lima, P. Artigas, M. A. Valero, M. Qayyum, and S. Mas-Coma	Impact of climate change and man-made irrigation systems on the transmission risk, long-term trend and seasonality of human and animal fascioliasis in Pakistan	Geospatial Health	1.0	8(20): 317-334.
40.	Ahmad, N., and M. Qayyum	Seroprevalence and risk factors for toxoplasmosis in large ruminants in northern Punjab, Pakistan.	J. Infect. Dev. Ctries.	1.3	8(8):1022-1028.
41.	Ahmad, N., H. Ahmed, S. Irum and M. Qayyum	Seroprevalence of IgG and IgM antibodies and associated risk factors for toxoplasmosis in cats and dogs from subtropical arid parts of Pakistan.	Tropical Biomedicine	0.816	31(4): 777-784
42.	Shafique, R. H., P. B. Klimov, M. Inam F. R. Chaudhary, and B. M. O'Connor	Group 1 Allergen Genes in Two Species of House Dust Mites, Dermatophagoides farinae and D. teronyssinus (Acari: Pyroglyphidae): Direct Sequencing, Characterization and Polymorphism	PLoS ONE	3.534	9(12): e114636. doi:10.1371/journal.pone.0114636

Department of Biochemistry

43.	Raja, G. K., M. Khan, N. Saba, R. M. Saqlain, N. Ahmed and A. Mansoor	Association of Adam33 gene SNPS with asthma in a local Pakistani population	American Journal of Pharmacology & Health Research	-	2(9): 97-103
44.	Ali, A., A. M. Mastrangelo, P. D. Vita, M. Arshad, S. M. S. Naqvi, A. Rasheed, A. G. Qazi and A. M. Qazi	Screening drought adaptive phonological traits in conventional and synthetic derived bread wheat germplasm and its implication for association mapping	Journal of Plant Research	2.507	Accepted
45.	Qasim, M. A., S. Parveen, S. Murtaza, Q. Javed, S. A. Malik, A. Sami, S. M. S. Naqvi, S. Hussain, S. Mehmood and M. Z. Hyder	Phylogenetics reveals the presence of human papillomaviruses high risk type 16 from female patients in Pakistan	Asia-Pacific Journal of Public Health	1.111	Under Review

46.	Deeba, F., M. Z. Hyder, M. U. Farooq and S. M. S. Naqvi	Multiplex PCR assay for identification of commonly used disarmed <i>Agrobacterium tumefaciens</i> strains	Springerplus	-	Accepted
47.	Khan, F., R. Boelens, S. M. S. Naqvi and H. V. Ingen	Structural basis of nucleic acid binding by <i>Nicotiana tabacum</i> glycine-rich RNA binding protein: implications for its RNA chaperone function	Nucleic Acid Research	8.808	42(13): 8705-8718
48.	Ali, A., S. M. S. Naqvi, M. Ahmad, H. Sher, S. Fatima, A. G. Qazi, A. Rashid, A. M. Qazi	Exploitation of synthetic derived wheats through osmotic stress responses for drought tolerance improvement	Acta Physiologiae Plantarum	1.732	36(9): 2453-2465
49.	Ahmad, I., T. Rubbab, F. Deeba and S. M. S. Naqvi	Optimization of E.coli culture conditions for efficient DNA uptake by electroporation	Turkish Journal of Biology	1.216	38: 568-573
50.	Gul, H., Mushtaq, N. Sarwar, S. K. Abbasi, M. S. Ahmad and M. Gulfraz	Phytochemical analysis and biological activities of diospyros lotus L. fruit extracts	International Journal of Pharmaceutical Chemistry	0.4	DOI 10.7439.04 (03)
51.	Hayat, I., A. Ahmad, A. Ahmed, S. Sohail and M. Gulfraz	Exploring the potential of red kidney beans (<i>Phaseolus Vulgaris</i> L.) to develop protein based product for food application	Journal of Animal and Plant Sciences	0.300	24(3): 860-868
52.	Rehman, A., M. Gulfraz, G. K. Raja, M. I. U. Haq and Z. Anwar	A comprehensive approach to utilize an agricultural pea peel (<i>Pisum 2 sativum</i>) waste as a potential source for bio-ethanol production	Romanian Journal of Biotechnology	-	Accepted
53.	Ahmad, D., M. Gulfraz, M. S. Ahmad, H. Nazir, H. Gul and S. Asif	Protective action of taraxacum officinale on CCL4 induced hepato toxicity in rats	African Journal of Pharmacology	0.500	8(30): 775-780
54.	Gulfraz, M., M. Imran, S. Khadam, D. Ahmed, M. J. Asad, K. S. Abbasi, M. Irfan and S. Mehmood	A comparative study of antimicrobial and antioxidant activities of garlic (<i>Allium sativum</i> L.) extracts in various localities of Pakistan	African Journal of Plant Sciences	0.500	8(6): 298-306
55.	Kamal, A., K. Qamar, M. Gulfraz, M. A. Anwar and R. N. Malik	PAH exposure and oxidative stress indicators of human cohorts exposed to traffic pollution in Lahore city (Pakistan)	Chemosphere	3.500	120:59-67
56.	Anwar, Z., M. Gulfraz and M. Irshad	Agro-industrial lignocellulosic biomass a key to unlock the future bioenergy: A brief review	Journal of Radiation Research and Applied Sciences	0.500	7(2): 163-173
57.	Anwar, P., A. Bendini, M. Gulfraz, R. Qureshi, E. Valli, G. D. Lecee, S. M. S. Naqvi and T. G. Toschi	Characterization of wild olive (<i>Olea ferruginea</i>) oils from Pakistan	Food Research International	3.50	54: 1965-1971
58.	Stuart, P. E., T. Tejasvi, P. A. Shaiq, P. Kullavanijaya, R. Qamar, G. K. Raja, Y. Li, J. J. Voorhees, G. R. Abecasis, J. T. Elder and R. P. Nair	A single SNP surrogate for genotyping HLA-C*06:02 in diverse populations	Journal of Investigative Dermatology	6.372	Preview online doi: 10.1038/jid. 2014. 517
59.	Raja, G. K., M. A. Sarzynski, P. T.	Commonality versus specificity among adiposity traits in normal-weight adults	International Journal of Obesity (London)	5.221	38(5): 719-723

	Katzmarzyk, W. D. Johnson, Y. Tchoukalova, S. R. Smith and C. Bouchard				
60.	Saba, N., O. Yousuf, S. Rehman, S. Munir, N. Bashir, A. Mansoor and G. K. Raja	Association of tumor necrosis factor alpha 308 G/A polymorphism with asthma in Pakistani population	Iranian Journal of Allergy Asthma and Immunology	1.013	Accepted
61.	Klar, J., A. Khalfallah, P. A. Shaiq, H. T. Gazda and N. Dahl	Recurrent GATA1 gene mutations in diamond-blackfan anaemia	Br. Journal of Haematol	4.959	166: 949-951
62.	Schuster, J., T. N. Khan, M. Tariq, P. A. Shaiq, K. Mabert, S. M. Baig and J. Klar	Exome sequencing circumvents missing clinical data and identifies a BSCL2 mutation in congenital lipodystrophy	BMC Med Genet.	2.450	15: 71 doi: 10.1186 /1471-2350-15-71
63.	Saeed, S., J. Quintin, H. H. Kerstens, N. A. Rao, A. Aghajani-refah, F. Mastarese, S. C. Cheng, J. Ratter, K. Berentsen, M. A. Van der Ent, N. Sharifi, E. M. Janssen-Megens, M. T. Huurne, A. Mandoli, T. Van Schaik, A. Ng, F. Burden, K. Downes, M. Frontini, V. Kumar, E. J. Giamarellos-Bourboulis, W. H. Ouwehand, J. W. Van der Meer, L. A. Joosten, C. Wijmenga, J. H. Martens, R. J. Xavier, C. Logie, M. G. Netea, H. G. Stunnenberg	Epigenetic programming of monocyte-to-macrophage differentiation and trained innate immunity	Science	31.48	26: 345(6204): 1 251086 doi: 10. 1126/science. 1251086
64.	Cheng, S. C., J. Quintin, R. A. Cramer, K. M. Shepardson, K. Saeed, V. Kumar, E.J. Giamarellos-Bourboulis, J. H. Martens, N. A. Rao, A. Aghajani-refah, G. R. Manjeri, Y. Li, D. C. Ifrim, R. J. Arts, B. M. Van der Meer, P. M. Deen, C. Logie, L. A. O'Neill, P. Willems, F. L. Ven de Veerdonk, J. W. Ven der Meer, A. Ng, L. A. Joosten, C. Wijmenga, H. G. Stunnenberg, R. J. Xavier and M. G. Netea	mTOR-and HIF-1 α -mediated aerobic glycolysis as metabolic basis for trained immunity	Science	31.48	26:345(6204): 1250684. Doi: 10. 1126/science. 1250684
65.	Mandoli, A., A. A. Singh, P. W. Jansen, A.	CBFB-MYH11/RUNX1 together with a compendium of hematopoietic	Leukemia	9.379	770-8 doi: 10.1038/ leu. 2013.257

	T. Wierenga, H. Riahi, G. Franci, K. Prange, S. Saeed, E. Vellenga, M. Vermeulen, H. G. Stunnenberg and J. H. Martens	regulators, chromatin modifiers and basal transcription factors occupies self-renewal genes in inv(16) acute myeloid leukemia			
66.	Vincent, J. B., T. Jamil, M. A. Rafiq, Z. Anwar, M. Ayaz, A. Hameed, T. Nasr, F. Naeem, N. A. Khattak, M. Carter, I. Ahmed, P. John, E. Wiame, D. M. Andrade, E. V. Schaftingen, A. Mir and M. Ayub	Phosphoserine phosphatase (PSPH) gene mutation in an intellectual disability family from Pakistan	Clin. Genet.	4.25	doi: 10.1111/cge. 12445
67.	Khattak, N. A., and A. Mir	Computational analysis of TRAPPC9: candidate gene for autosomal recessive non-syndromic mental retardation	CNS& Neurological Disorders-Drug Targets	3.67	In Press
68.	Krueger, L. A., D. C. Beitz, K. Onda, M. Osman, M. R. O'Neil, S. Lei, F. H. Wattoo, R. L. Stuart, H. D. Tyler and B. Nonnecke	Effects of D- α -tocopherol and dietary energy on growth and health of preruminant dairy calves	Journal of Dairy Science	2.566	97: 3715-3727
69.	Qadir, M. A., F. H. Wattoo, M. Yaseen, S. Atta, M. H. S. Wattoo, S. A. Ahmad and A. Gulzar	In-vitro binding assay study of 99m Tc-flouroquinolones with E.coli, salmonella and Ps. Aeruginosa	Alexandria Journal of Medicine	-	In Press
70.	Ata, S., F. H. Wattoo, M. Ahmed, M. H. S. Wattoo, S. A. Tirmizi and A. Wadood	A method optimization study for atomic absorption spectrophotometric determination of total zinc in insulin using direct aspiration technique	Alexandria Journal of Medicine	-	In Press

Department of Sociology and Anthropology

71.	Farooq, M., S. Tariq, F. Gulzar, F. I. Mirza and F. Riaz	Determinants of international migration in Pakistan	Mediterranean Journal of Social Sciences	-	5(20): 2028-2032
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Department of Economics and Agri. Economics

72.	Hussain, A., F. Zulfiqar and A. Saboor	Changing food patterns across the seasons in rural Pakistan: Analysis of food variety, dietary diversity and calorie intake	Journal Ecology of Food and Nutrition	0.765	53(2): 119-141
73.	Arshad, M., A. Mushtaq, E. Ahmed, A. Saboor, A. Abbas and S. Sadiq	An ethnobiological study in kala chitta hills of Pothwar region, Pakistan: multinomial logit specification	Journal of Ethnobiology and Ethnomedicine	0.42	doi:10.1186/1746-4269-10-13
74.	Rasool, S. A., A. Saboor and M. Rashid	Measuring efficiency of hospitals by DAE: An empirical evidence from Pakistan	International Journal of Public Health Sciences	-	3(2): 129-136

Department of Mathematics & Statistics

75.	Raqeeb, A., S. M. Nazami, A. Saleem and M. Hanif	Characteristics and Growing Stocks volume of Forest stand in Dry Temperate Forest of Chilas Gilgit-	Open Journal of Forestry	-	Vol. 4, PP 231-238
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		Baltistan			
76.	Yousaf, K., M. Iqbal, T. Iqbal and M. Hanif	Effect of Field Plot Design on the Efficacy of Boom Sprayer	Universal Journal of Agricultural Research	-	Vo. 2, No. 7 PP236-241.
77.	Rasul, G., M. Hanif, N. Jamal, M. R. Athar, S. Ilyas, N. Ali, A. Shakoora, A. Hussain, M. S. Kiani, and M. Ahmed	Risk factors of Child Mortality Using Logistic Regression Model	Pensee Journal	0.063	Vol. 76, No. 1 PP 416-424
78.	Athar, M. R., N. Jamal, S. Ilyas, M. Nawaz, A. Batool, S. Asghar and S. Tariq	Effect of Transformational and Transactional Leadership on Employee Performance; mediating role of Knowledge Management	Jökull Journal	1.604	Vol. 66, No. 5 PP 405-414
79.	Mustafa, S., P. Gowasmi, S. K. Lee and M. Arif	Some radii problems related to certain p-valent meromorphic functions	Indian J. Pure & Applied Sci.	-	Vol. 45, PP 311-320

FACULTY OF FORESTRY, RANGE MANAGEMENT & WILDLIFE

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Forestry & Range Management					
1.	Hussain, F., A. Khaliq, M. I. Ashraf and I. A. Khan	Morphological and hydrological responses of soan and khad rivers to impervious land use in District Murree, Pakistan	Journal of Agriculture Research	-	52(2): 269-282
2.	Gulzar, S., S. M. Nizami, A. Saleem, S. N. Mirza and T. Mahmood	Allocation of biomass in <i>Dalbergia sissoo</i> at four thinning ages in irrigated plantation of Punjab	Pakistan Journal of Agricultural Sciences	1.200	51(3): 525-529
Department of Environmental Sciences					
3.	Qadeer, S., A. Batool, A. Rashid, A. Khalid, N. Samad and M. A. Ghufuran	Effectiveness of biochar in soil conditioning under simulated soil conditions	Soil and Environment	-	33(2): 149-158
4.	Malik, S. N., M. T. Siddique, R. Hayat, A. Khalid, K. M. Qureshi and H. Ahmad	Mapping K dynamics in apple orchard's soils of Northern Punjab, Pakistan	Soil and Environment	-	http://www.se.org.pk/Papers.aspx?issueid=39
5.	Baig, K. S., M. M. Arshad, A. Khalid, S. Hussain, M. N. Abbas and M. Imran	Improving growth and yield of maize through bioinoculants carrying auxin production and phosphate solubilizing activity	Soil and Environment	-	33(2): 159-168
6.	Ahmed, H., M. T. Siddique, S. Ali, N. A. Abbasi, A. Khalid and R. Khalid	Micronutrient indexing in the apple orchards of Northern Punjab, Pakistan using geo-statistics and GIS as diagnostic tools	Soil and Environment	-	33(1): 7-16
7.	Imran, M., M. Arshad, A. Khalid, S. Kanwal and D. E. Crowley	Perspectives of rhizosphere microflora for improving Zn bioavailability and acquisition by higher plants	International Journal of Agriculture and Biology	0.808	16(3): 653-662
8.	Khalid, A., J. Arshad, S. Mahmood, I. Aziz and M. Arshad	Effect of chromium forms on the biodegradation of reactive black-5 azo dye by <i>Psychrobacter</i> and <i>Klebsiella</i> species	International Journal of Agriculture and Biology	0.808	In press
9.	Abid, J., T. Mahmood, A. Khalid, T. Siddique and I. Aziz	Optimization of pyrolysis yields of paper mulberry (<i>Broussonetia papyrifera</i>) and application of biochar product for the improvement of maize growth	International Journal of Agriculture and Biology	0.808	16(5): 929-934
10.	Aziz, I., T. Mahmood and R. I. Khandakar	Impact of long-term tillage and crop rotation on concentration of soil particulate organic matter associated carbon and nitrogen	Pakistan Journal of Agricultural Sciences	1.240	51(3): 1-8
11.	Mehmood, S., M.	Statistical screening and selection of	Pakistan Journal of	1.123	46(3): 1115:1120

	Gulfraz, M. S. Tahir, M. S. U. Rehman, T. Aqil and T. Mahmood	sweet sorghum varieties for bioethanol production	Botany		
12.	Robab, U., T. Mahmood, Y. Zafar, A. Rashid and M. K. N. Shah	Comparison of nutritional value of transgenic peanut expressing bar and rcg3 genes with non-transgenic counterparts	Pakistan Journal of Botany	1.123	46(5): 1539-1542
Department of Wildlife Management					
13.	Rais, M., S. Abbassi, T. Batool, M. J. Jilani, M. A. Assadi, H. Mubarak, and S. Baloch	A note on recapture of <i>Nanorana vicina</i> (Anura: Amphibia) from Murree, Pakistan	Journal of Animal and Plant Sciences	0.638	24(2): 455-458
14.	Ansari, M. S., B. A. Rakha, S. M. H. Andrabi, N. Ullah, R. Iqbal, W. V. Holt and S. Akhter	Thioglycol in extender improves the post-thaw quality of buffalo (<i>Bubalus bubalis</i>) bull spermatozoa	Journal of Animal and Plant Sciences	0.549	24: 1256-1259
15.	Zia, U., M. S. Ansari, S. Akhter and B. A. Rakha	Breeding biology of red vented bulbul (<i>pycnonotus cafer</i>) in the area of rawalpindi/Islamabad	Journal of Animal and Plant Sciences	0.549	24: 24: 656-659
16.	Ansari, M. S., B. A. Rakha, R. Iqbal and S. Akhter	Effect of glutathione in extender on the Freezability of Sahiwal bull spermatozoa.	Pakistan Journal of Zoology	0.4	46: 17-21
17.	Akhter, S., B. A. Rakha, R. Iqbal and M. S. Ansari	Effect of bovine serum albumin on motility, plasmalemma, viability and chromatin integrity of buffalo bull spermatozoa	Pakistan Journal of Zoology	0.4	46: 115-120
18.	Akhter, S., M. S. Ansari, B. A. Rakha, S. M. H. Andrabi, M. Qayyum and N. Ullah	Effect of Fructose in Extender on Fertility of Buffalo Semen. Short Communication.	Pakistan Journal of Zoology	0.4	46: 279-281

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Forestry & Range Management					
1.	Raza, G., S. N. Mirza, M. Akbar, I. Hussain, M. Ali, S. Hyder, W. Khan, S. Ali, M. Raza and N. Ahmad	An assessment of surface features and vegetative cover in alpine rangelands of CKNP region, Pakistan	Journal of Biodiversity & Environmental Sciences	-	5(5): 274-279
2.	Ullah, M., S. N. Mirza and A. Saleem	Assessment of growing stock of matta forest subdivision of swat forest division	International Journal of Scientific & Engineering Research	3.200	5(9): 518-522
3.	Moazzam, S. M., Z. Yiping, S. Liqing, Z. Wei and Z. Xiang	Managing carbon sinks in rubber (hevea brasiliensis) plantation by changing rotation length in SW China	Plos One	3.800	10.1371/journal.pone.0115234

4.	Ahmad, S., A. Ahmad and S. M. Nizami	Assessment of biomass expansion factor of <i>Picea Smithiana</i> (Wall) boiss	International Journal of Scientific Engineering & Research	3.200	5(11): 1232-1239
5.	Wei, Z., Z. Yi-ping, S. Qing-hai, Z. Xiang, J. Hong-li, S. M. Nizami and Y. Lei	Characteristics of transpiration and its relationship with environmental factors in rubber trees (<i>Hevea brasiliensis</i>)	Chinese Journal of Ecology	-	Accepted
6.	Alam, Khurshid and S. M. Nizami	Assessing biomass expansion factor of birch tree <i>betula utilis</i> D.DON	Open Journal of Forestry	0.288	4:181-190
7.	Raqeab, Abdul., S. M. Nizami, A. Saleem and M. Hanif	Characteristics and growing stocks volume of forest stand in dry temperate forest of Chilas Gilgit-Baltistan	Open Journal of Forestry	0.288	4: 231-238
8.	Ahmad, A and S. M. Nizami	Estimation of carbon stocks in different land uses of kumrat valley Hindu Kush region of Pakistan	Journal of Forestry Research	0.882	DOI: 10.1007/s 11676-014-0552-0
Department of Environmental Sciences					
9.	Mahmood, S., A. Khalid, M. Arshad, T. Mahmood and D. E. Crowley	Detoxification of azo dyes by oxidoreductase enzymes	Critical Review in Biotechnology	7.837	In Press
10.	Imran, M., D. E. Crowley, A. Khalid, S. Hussain, M. W. Mumtaz and M. Arshad	Microbial biotechnology for decolorization of textile wastewaters	Critical Review in Environmental Science and Bio Technology	2.263	DOI 10.1007/s 11157-014-9344- 4.
11.	Saba, B., M. Jabeen, A. Khalid, T. Mahmood and I Aziz	Effectiveness of rice agricultural waste, microbes and wetland plants in the removal of reactive black-5 azo dye in microcosm constructed wetlands	International Journal of Phytoremediation	1.466	Accepted
12.	Mahmood, S., A. Khalid, M. Arshad and R. Ahmad	Effect of trace metals and electron shuttle on simultaneous reduction of reactive black 5 azo dye and hexavalent chromium in liquid medium by <i>Pseudomonas</i> sp	Chemosphere	3.499	DOI 10.1016/j. chemosphere. 2014. 10.084
13.	Mehmood, A., M. S. Akhtar, K. S. Khan, A. Khalid, M. Imran and S. Rukh	Relationship of phosphorus uptake with its fractions in different soil parent materials	International Journal of Plant & Soil Science	-	4(1): In Press
14.	Imran, M., M. Arshad, A. Khalid, S. Hussain, M. W. Mumtaz and D.E. Crowley	Decolorization of reactive black 5 by <i>Shewanella</i> sp. in the presence of metal ions and salts	Water Environmental Research	1.000	In Press
15.	Ali, U., R. N. Malik, J. H. Syed, C. T. Mehmood, L. Sanchez-Garcia, A. Khalid and M. J. I. Chaudhary	Mass burden and estimated flux of heavy metals in Pakistan coast: Sedimentary pollution and ecotoxicological concerns	Environmental Science and Pollution Research	2.757	DOI 10.1007/s 11356-014-3612- 2
16.	Rashid, A., T. Mahmood, F. Mahmood, A. Khalid, B. Saba, A. Batool and A. Riaz	Phytoaccumulation, competitive adsorption, and evaluation of chelators metal interaction in lettuce plant	Environmental Engineering and Management Journal	1.258	13(10): 1535-1544
17.	Shahzad, S. M., A. Khalid, M. S. Arif and R. Kausar	Co-inoculation integrated with P-enriched compost improved nodulation and growth of Chickpea (<i>Cicer</i>	Biology and Fertility of Soils	3.396	50: 1-12

		<i>arietinum</i> L.) under irrigated and rainfed farming system			
18.	Kamal, A and Rashid, A	Benzene exposure among auto-repair workers from workplace ambience: a pioneer study from Pakistan	International Journal of Occupational Medicine and Environmental Health	1.094	27(5): 830-839
19.	Naseem, A., A. Rashid and N. Kureshi	E-health: effect on health system efficiency of Pakistan	Annals of Saudi Medicine	0.705	34: 59-64
20.	Amjad, M. S., M. Arshad, A. Rashid, S. K. Chaudhari, N. Z. Malik, S. Fatima and F. Akrim	Examining relationship between environmental gradients and lesser Himalyan forest vegetation of Nikyal valley, Azad Jammu and Kashmir using ordination analysis	Asian Pacific Journal of Tropical Medicine	0.926	7(1): 610-616
21.	Saba, B.,	Potential treatment options for hydro fracking return fluids	Journal of Chemical and Biological Engineers	-	1(6): 1-8
22.	Saba, B., B. Zaman, T. Mahmood and S. J. Khan	Treatment of waste water with a high c/n ratio in sequencning batch bioreactor (SBBR) containing biocarriers	Environmental Engineering and Management Journal	1.258	In Press
23.	Saba, B., M. Jabeen, M. Mahmood and I. Aziz	Treatment comparison efficiency of microbial amended agro-waste biochar constructed wetlands for reactive black textile dye	International Proceedings of Chemical, Biological and Environmental Engineering	-	65(3): 13-16
Department of Wildlife Management					
24.	Ashraf, N., M. Anwar, I. Hussain and M. A. Nawaz	Competition for food between the markhor and domestic goat in Chitral, Pakistan.	Turkish Journal of Zoology	0.585	38: 191-198. 2014.
25.	Noureen, S., M. S. Nadeem, M. A. Begand M. Anwar	Seasonal variation in the reproductive tract of the Indian flying fox, <i>Pteropus giganteus</i> (Brünnich, 1782).	Animal Biology	0.614	64: 343–364. 2014
26.	Mahmood, T., N. Irshad and R. Hussain	Habitat Preference and Population Estimates of Indian Pangolin(<i>Manis crassicaudata</i>) in District Chakwal of Potohar Plateau, Pakistan	Russian Journal of Ecology	0.236	45(1): 70-75
27.	Nadeem, M. S., T. Mahmood and M.U. Hassan	Breeding success of the Stone Curlew <i>Burhinus oedicnemus</i> in Nag Valley (1999–2001), Kharan, Pakistan	Turkish Journal of Zoology	0.414	38: 510-514
28.	Awais, M., S. Ahmed, S. Mahmood, A. Mehmood, S. Ali, K. Bibi and T. Mahmood	Nest Density, Clutch Size and Egg Traits of House Crow <i>Corvus splendens</i> at Ghazikot Township, Mansehra, Pakistan	The Journal of Zoology Studies	-	1(5): 13-18
29.	Akrim, F., M. S. Awan, T. Mahmood, M. Z. Anjum, S. Qasim, J. Khalid, D. Shahwar and S. Andleeb	Threats to Red Junglefowl (<i>Gallus gallus murghi</i>) in Deva Vatala National Park, District Bhimber, Azad Jammu and Kashmir, Pakistan.	Annual Research & Review in Biology	-	6(1): DOI: 10.9734/ARRB/2015/9596
30.	Rais, M., J. Rehman, S. Baloch, S. M. Ali and I. Hussain	On the herpetofauna in Loi Bher Wildlife Park, Rawalpindi, Pakistan	Taprobanica	--	6 (1): 56–58

31.	Qadeer, S., M. A. Khan, M. S. Ansari, B. A. Rakha, R. Ejaz, A.U. Husna, M. Ashiq, R. Iqbal, N. Ullah and S. Akhter	Evaluation of Antifreeze Protein III for Cryopreservation of Nili-Ravi (<i>Bubalus bubalis</i>) Buffalo Bull Sperm	Animal Reproduction Science	1.581	148: 26-31
32.	Ejaz, R., M. S. Ansari, B. A. Rakha, N. Ullah, A. U. Husna, R. Iqbal and S. Akhter	Arachidic acid in extender improves post-thaw parameters of cryopreserved Nili-Ravi buffalo bull semen	Reproduction in domestic animal	1.177	49: 122-125

FACULTY OF VETERINARY & ANIMAL SCIENCES

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Livestock Production and Management					
1.	Din, M. M. U., G. Bilal and M.S. Khan.	Genomic selection of Sahiwal cattle	Pakistan Journal of Agricultural Sciences	1.240	51(3): 695-700
2.	Ahmed, S., M. A. Jabar, A. Khalique, K. Javed, Saima, N. Ahmed, F. Shahzad and M. Fiaz	Effect of varying NDF levels on productive performance for lactating Nili Ravi buffaloes	Journal of Animal & Plant Sciences	0.549	Full length paper 24 (4): 1008-1014
3.	Ahmed, S., M. A. Jabar, A. Khalique, K. Javed, Saima, N. Ahmed, F. Shahzad and M. Fiaz	Effect of different levels of NDF on voluntary feed intake, dry matter digestibility and nutrient utilization in dry Nili Ravi buffaloes	Journal of Animal & Plant Sciences	0.549	(accepted)
4.	Nasrullah, M. A., M. A. Kakar, J. Sales, I.B. Marghazani, A. N.Khosa, M. Fiaz, M. H. Kakar and A. H. Khan	Nutrients Intake And Digestibility of Lohi Lambs And Beetal Kids Fed under Intensive Management System	Journal of Animal & Plant Sciences	0.549	24(Suppl.1): 80-82
5.	Iqbal, M. F., and M. M. Hashim	Dietary manipulation to combat ruminant methane production.	Journal of Animal and Plant Sciences	0.594	24: 91-93
Department of Pathobiology					
6.	Mufti, S., K. Afshan, I. A. Khan, Y. Zafar, S. S. R. Rizvi, F. Nazir and M. Qayyum	Genetic characterization of <i>Fasciola</i> samples from bovine hosts in Pakistan by sequences of ribosomal internal transcribed spacer regions	Pakistan Veterinary Journal	1.392	34:361-366
7.	Mahmood, F., A. Khan, R. H. and I. A. Khan	Molecular Based Epidemiology of Bovine Pulmonary Tuberculosis – a Mortal Foe	Pakistan Veterinary Journal	1.392	34(2): 185-188
Department of Poultry Science					
8.	Hassan, S. U., N. Mukhtar, S. U. Rahman and A. A. Mian	Molecular epidemiology of mycoplasma gallisepticum in different types of chickens	International Journal of Agriculture and Biology	0.870	16: 165-170

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
Department of Clinical Studies					
1.	Nadeem, M., A. Yousaf, Z. Iqbal, M.M. Awais and B.A. Pervez	Prevalence, diagnosis and treatment of mycoplasmosis in game birds	World Poultry Science Journal	1.25	70(1):69-80

2.	Werner,B., P. Moroni, G. Gioia, L. Lavín-Alconero, A. Yousaf, M. E. Charter, B.M. Carter, J. Bennett, D. V. Nydam F. Welcome, and Y.H. Schukken	Genotypic and phenotypic identification of environmental streptococci and association of <i>Lactococcus lactis</i> subsp. <i>lactis</i> with intramammary infections among different dairy farms	Journal of Dairy Science	2.564	97(11):6964-6969
3.	Kiani, F. A., A. Yousaf, M. A. Zafar, M. Nawaz, Z. Akber, M.U. R. Sohoo and A. S. Magsi	Effect of on Physical Characteristics of Kundhi Buffalo Bull Semen	International Journal of Current Microbiology and Applied Sciences	-	3(11):445-453
Department of Livestock Production and Management					
4.	Din, M. M. U and G. Bilal	Sequence diversity and molecular evolutionary rates between buffalo and cattle	Journal of Animal Breeding & Genetics	2.059	doi: 10.1111/jbg.12100.
5.	Iqbal, J., S. H. Khan, N. Mukhtar, T. Ahmed & R. A. Pasha	Effects of egg size (weight) and age on hatching performance and chick quality of broiler breeder	Journal of Applied Animal Research	0.218	10.1080 /09712119.2014.987294
6.	Muhammad Moaen-ud-Din	Buffalo genome research: a review	Animal Science Papers and Reports	0.918	32(3): 187-199
7.	Bilal, G., R. I. Cue, A. F. Mustafa, and J. F. Hayes	Effects of parity, age at calving and stage of lactation on fatty acid composition of milk in Canadian Holsteins	Can. J Anim. Sci.	0.960	94: 401- 410
8.	Bilal, G., R. I. Cue, A. F. Mustafa, and J. F. Hayes	Genetic parameters of individual fatty acids in milk of Canadian Holsteins	J Dairy Sci.	2.550	97: 1150–1156
9.	Aslam, N., M. Abdullah, M. Fiaz, J. A. Bhatti, M. Z. Iqbal, N. Bangulzai, C. W. Choi and Ik H. Joe	Evaluating different milking practices for optimum production performance in Sahiwal cows	Journal of Animal Science and Technology	0.419	56:13
10.	Saghir, A., M. Sharif, N. Ahmad and M Yaqoob	Comparative feeding practices for small and large ruminants in Punjab, Pakistan	Pairfex-Idina Journal of Research		3(9): 4-6.
Department of Veterinary Biomedical Sciences					
11.	Sandhu, M. A., A. A. Saeed, M. S. Khilji, R. H. Pasha, N. Mukhtar and M. S. Anjum	Ontogenic development of corticotrophs in fetal buffalo (<i>Bubalus bubalis</i>) pituitary gland	European Journal of Histochem.	2.41	58:2292
12.	Ahmed, A., A. Ahmad, N. Khalid, A. David, M. A. Sandhu, M. A. Randhawa and H. A. R. Suleria	A Question mark on iron deficiency in 185 million people of Pakistan: Its outcomes and prevention	Crit. Rev. Food Sci. Nutri.	4.82	In Press
13.	Anjum, M. S., M. A. Sandhu, N. Mukhtar and Z. U. Rehman	Egg quality characteristics influenced by various heat combating system during heat stress	Tropical Animal Health & Production	0.970	46 (7): 1135-1140
14.	Iqbal, J., S. H. Khan, N. Mukhtar, T. Ahmed and R. H. Pasha	Effects of egg size (weight) and age on hatching performance and chick quality of broiler breeder	Journal of Applied Animal Research	0.479	www.tandfonline.com/doi/pdf/10.1080/09712119.2014.987294

15.	Haq, A. U., N. Akram, Z. U. Rehman, S. U. Rehman, M. Ashraf and R. H. Pasha	Influence of Dietary Acetic acid Supplementation on the Broiler Performance, Intestinal Histomorphology and Hematology	Anatomia, Histologia, Embryologia	0.742	43(1):17-18
Department of Pathobiology					
16.	Rehman, S. U., M. Arshad, I. Hussain and Z. Iqbal	Detection and Seroprevalence of Foot and Mouth Disease in Sheep and Goats in Punjab, Pakistan	Transboundary and Emerging Diseases	3.116	(Suppl. 1) 25–30
17.	Shah, M. A. A., N. He, Z. Li, Z. Ali and L. Zhang	Nanoparticles for DNA vaccine delivery	Journal of biomedical nanotechnology	7.578	1:2332-2349
18.	Umar, S., S. Ullah, M. Yaqoob and M. A. A. Shah	Infectious Anaemia, an Immunosuppressive disease of poultry birds	World poultry Science Journal	1.158	70:759-766
19.	Shah, M. A. A., S. Umar, M.F. Iqbal, F. Rehman, I. Qadri and N. He	Recent development in DNA Vaccination approaches against poultry coccidiosis and its future endeavors	World poultry Science Journal	1.158	70:315-328
20.	Shah, M. A. A., S. U. Khan, Z. Ali, H. Yang, K. Liu and L. Mao	Applications of Nanoparticles for DNA based Rabies Vaccine	Journal of Nanoscience and Nanotechnology	1.339	14:881-889
21.	Munir, M. T., A. R. Munir, M.U. Hasan and M. Abubakar	Epidemiology and Management strategies of Johne's disease in endemic situations	Research Journal for Veterinary Practitioners	--	2:84-90
Department of Poultry Science					
22.	Anjum, M. S., M. A. Sandhu, N. Mukhtar and Z. Rahman	Upgrade of egg quality through different heat-combating systems during high environmental temperature	Tropical animal health and production	1.1	46:1135-1140
23.	Iqbal, J., S. H. Khan, N. Mukhtar, T. Ahmed and R. A. Pasha	Effects of egg size (weight) and age on hatching performance and chick quality of broiler breeder	Journal of applied Animal Research	0.445	Online

FACULTY OF AGRICULTURAL ENGINEERING & TECHNOLOGY

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Mustafa, I., S. S. Asif, M. R. Khan and H. Ahmed	Association of citrus leaf miner with leaf biochemical factors (Ca ²⁺ , K ⁺ and Mg ²⁺) in kin now leaves of district Sargodha, Punjab, Pakistan	Pakistan Journal of Zoology	0.40	46(4): 953-958
2.	Arshad, M., N. Ahmed, I. Mustafa, M. R. Khan and H. Ahmed	Avifauna studies in co-relation with alteration in climatic patterns and hydrology of Uchalli lake, Punjab, Pakistan	Pakistan Journal of Zoology	0.40	46(2): 503-515

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Mustafa, I., S. S. Asif, M. R. Khan and H. Ahmed	An epidemiological study on ticks infestation in sheeps and goats of district Sargodha, Punjab, Pakistan	Kafkas University of Vet. Fak. Derg	0.495	20(5): 655-662
2.	Arshad, M., F. Siddique, S. Ahmed, I. Mustafa, P. Anwar, M. R. Khan, S. Asif and H. Ahmed	An epidemiological study on prevalence of goat warble fly infestation (GWFI) in Punjab Province, Pakistan	Kafkas University of Vet. Fak. Derg	0.495	20(1): 35-40
3.	Mustafa, I., ABM. Raza, M. Arshad, A. Ghani, M. R. Khan and H. Ahmed	Population dynamics of citrus leaf miner (CLM) (Phyllocnistis citrella: Stainton) on different species of citrus in correlation with abiotic environmental factors in district Sargodha, Punjab, Pakistan	Phytoparastica	0.80	42(3): 341-348
4.	Hassan, S., V. Lucarini, M. R. Khan, M. Petitta, T. Boloch and G. Gioli	Early 21 st century climatology of snow cover for the western river basins of the Indus river system	Journal Paper Hydrol. Earth System Science	3.642	18: 4077-4100
5.	Umair, M., A. Akisawa and Y. Ueda	Performance evaluation of a solar adsorption refrigeration system with a wing type compound parabolic concentrator	Energies	1.84	7(3): 1448-1466
6.	Umair, M., A. Akisawa and Y. Ueda	Simulation study of continuous solar adsorption refrigeration system driven by compound parabolic concentrator	The Open Renewable Energy Journal	-	1(1): 1-12
7.	Wirajati, I. G. A. B., M. Umair, K. Enoki, Y. Ueda and A. Akisawa	A three-stage adsorption cycle with three silica-gel beds	Trans. Of the JSRAE	-	Accepted

UNIVERSITY INSTITUTE OF INFORMATION TECHNOLOGY

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Khatoon, A., and Y. Hafeez	An ontological framework for requirement change management in distributed environment	The Nucleus, A Quarterly Scientific Journal of Pakistan Atomic Energy Commission NCLEAM	-	51(2): 291-301

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Sultana, S., Y. Hafeez, S. Asghar, M. Jamal and R. Azad	A hybrid model by integrating agile practices for Pakistani software industry	24 th International Conference on Electronics, Communications & Computers	-	ISBN: 978-1-4799-3469-0/14, 2014 Cholula
2.	Akhtar, A., and Y. Hafeez	Role of requirement change in software architecture using twin peaks model	IEEE 5 th International Conference on Software Engineering and Service Science	-	ISBN: 978-1-4799-3279-5/14(2014)
3.	Minhas, N. M., Q. U. Ain, Z. U. Islam and A. Zulfiqar	An improved framework for requirement change management in global software development	Journal of Software Engineering and Applications	0.88	http://dx.doi.org/10.4236/jsea.2014.79072 Pp 779-790
4.	Bibi, S., S. Mazhar, N. M. Minhas and I. Ahmed	Formal methods for commercial application issues vs. solutions	Journal of Software Engineering and Applications	0.88	http://dx.doi.org/10.4236/jsea.2014.78062 Pp 679-685
5.	Shafiq, S., and N. M. Minhas	Integrating formal methods in XP – A conceptual solution.	Journal of Software Engineering & Applications	0.88	http://dx.doi.org/10.4236/jsea.2014.74029 Pp 299-310
6.	Khan, M. B. Y., S. Anwar and N. M. Minhas	SOFL – A vetter approach for formal specification: A case study based comparison	International Journal of Advanced Research in Computer Science and Electronics Engineering	2.080	3(3): 156-162
7.	Jabeen, J., M. A. Abbasi and N. M. Minhas	A comparative analysis of formal languages based upon various parameters	International Journal of Engineering Research & Technology	1.76	3: 434-438
8.	Hassan, M. S.,	Factors affecting business process reengineering in ERP implementation: A literature review	International Review of Basic and Applied Sciences	-	2(8): 113-119

UNIVERSITY INSTITUTE OF MANAGEMENT SCIENCES

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Mahmood, S., S. Attiq and R. I. Azam	“Motivational Needs, Core-Self-Evaluations and their link with Job Satisfaction: Evidence from Telecom Sector of Pakistan”	Pakistan Journal of Commerce and Social Sciences	-	8(1):149-169
2.	Jafri, A. R., and F. Faisal	Problems and Prospects of Good Governance in Pakistan	New Horizons, Greenwich University ,Karachi, Pakistan, ISSN 1992-4399	-	8(2) July 2014
3.	Reheman, A., M. K. Sohail, B. Zulfiqar, M. Ahsan, A. Ahmed and S. Sheeraz	Short Run and Long Run Performance of Initial Public Offerings in Pakistan	Pakistan Business Review	-	16(3): 613-645
4.	Hunjra, A. I., H. Raza and I. U. Munir	The Role of Employee Retention and Employee Productivity on Performance of Oil & Gas Sector of Pakistan	International Journal of Economics and Empirical Research	-	2 (11)449-453
5.	Hunjra, A. I., M. S. Ijaz, M. I. Chani, S. U. Hassan and U. Mustifa	Impact of Dividend Policy, Earning per Share, Return on Equity and Profit after Tax on Stock Prices.	International Journal of Economics and Empirical Research	-	2(03):109-115
6.	Hunjra, A. I., M. I. Chani, S. Javed, S. Naeem and M. S. Ijaz	Impact of Microeconomic Variables on Firm Performance	International Journal of Economics and Empirical Research	-	2(02):65-73
7.	Hunjra, A. I., M. I. Chani, S. Ijaz, M. Farooq and K. Khan	The Impact of Macroeconomic Variables on Stock Prices in Pakistan	International Journal of Economics and Empirical Research	-	2(01):13-21

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Abbas, Q., A. I. Hunjra, R. I. Azam, M. S. Ijaz and M. Zahid	Financial Performance of Banks in Pakistan after Merger and Acquisition	Journal of Global Entrepreneurship Research	-	4 (01): 1-15
2.	Abbas, Q., A. I. Hunjra, R. Saeed, E. U. Hassan and M. S. Ijaz	Analysis of Pre and Post Merger and Acquisition Financial Performance of Banks in Pakistan	Information Management and Business Review	-	6 (04): 177-190
3.	Khan, S. A., S. A. Qureshi, and A. I. Hunjra	CRM Implementation: A Descriptive Study of the Service Industry in Pakistan	World Applied Sciences Journal	-	30 (03): 355-361

**DIVISION OF CONTINUING EDUCATION, HOME ECONOMICS
AND WOMEN DEVELOPMENTSSS**

NATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
1.	Kiani, A., M. H. Shah	An application of ADKAR change model for the change management competencies of school heads in Pakistan.	Journal of Managerial Sciences	-	8(1): 76-95

INTERNATIONAL PUBLICATIONS

S. No.	Name of Author(s)	Title of Research Paper	Name of Journal	Impact Factor	Volume & Page No.
2.	Khan, S., M. I. Yousuf, M. A. Dahar, Q. Parveen	Prospective Teachers' Perceptions on Performance of Teacher Educators.	Academic Research International	-	5(4): 330-338
3.	Rasool, U., M. I. Yousuf.	Identification of Peace Elements and Characteristics in 8th Grade Urdu Textbook.	Academic Research International.	-	5(5): 300-307
4.	Kiran, S., M. I. Yousuf, B. N. Siddique, T. Ehsan.	Comparison of Self-Efficacy Levels of the Teachers of Agricultural Universities at Faisalabad and Rawalpindi.	Academic Research International.	-	5(5): 291-299
5.	Khurshid, S., Q. Parveen, M. I. Yousuf.	A Comparative Study of Psychological Adjustment of the Children Belonging to Working and Non-working Women in Nuclear and Joint Family System.	Anthropologist	0.051	18 (2): 583-589
6.	Beskeni, R. D., S. Rodrigues, M. I. Yousuf.	Use of ICTs as Pre-Laboratory Activity for Chemistry Practical at Nigeria and Pakistan.	Educational Research International	-	3(5): 57-62
7.	Fatima, I., K. Naeem, B. N. Siddiqui, S. Bano, M. I. Yousaf, L. Khalid, M. Aslam.	Food security of small famers in district Rawalpindi.	International Journal of Advanced Research in Biological Sciences.	-	1(8): 205-211
8.	Tabassum, N., A. Kiani, M. A. Chuadhry, S. Kiyani	Study of attitudes of parents, teachers and managers towards inclusive education in Pakistan	International Journal of Innovation and Applied Studies	-	9(3):1128-1135

SEMINARS, WORKSHOPS & CONFERENCES

SEMINARS, WORKSHOPS & CONFERENCES HELD AT UNIVERSITY

- The Department of Entomology Organized a Seminar on Prevention and Control of Dengue Mosquitoes at Seminar Room of the University on January 30, 2014.
- The Department of Zoology Organized a Free Camp for Screening of Hepatitis B, C and HIV/AIDS on March 19, 2014.
- The Faculty of Agricultural Engineering & Technology organized the World Water Day on March 22, 2014.
- The Department of Horticulture organized the Spring Flower Festival 2014 on April 11-14, 2014.
- The University Institute of Information Technology organized the Andriod App. Development Workshop on April 15-16, 2014.
- The Department of Biochemistry Organized 3-Days International Conference on “Energy Production From Agriculture Biomass and Domestic Wastes” on April 15-17, 2014.
- The University Organized a Seminar on Role of Leadership in Steering Education Towards National Issues on May 13, 2014. Syed Babar Ali, Former Finance Minister of Pakistan and Executive Advisor of Packages Ltd was the Chief Guest.
- The Department of Mathematics & Statistics Organized a Seminar on “Official Statistics & the Academia” on May 29, 2014.
- The University Organized the Workshop on Optimizing Canal and Groundwater Management on June 02, 2014.
- The University Organized the Five-day International Workshop on Irrigation Water for enhancing Productivity in Achieving Food Safety Resource Management in Pakistan on June 02, 2014.

- The Department of Agricultural Extension & Communication organized a Seminar on Information Access and Role of ICT's in Extension on June 19, 2014.
- The University Institute of Information Technology organized 7th Annual Open House on June 26, 2014.
- The Department of Zoology Organized a Speech Competition on the Topic "Donate Blood Save Life" on June, 2014.
- The University Institute of Information Technology organized Training Workshop on Rechna Doab Model Development on August 02-11, 2014.
- PMAS-AAUR observed the World Rabies Day based on the theme "Let's Work Together to Eliminate Rabies" by arranging a seminar and a walk on October 01, 2014.
- The Department of Economics & Agricultural Economics organized a Seminar on Right to Food and Food Security on October 30, 2014.
- The Department of Food Technology organized the World Food Day on October 16, 2014.
- The University Institute of Information Technology organized the Seminar on Next Generation Wireless Networks and Their Role in the Society on November 06, 2014.
- The Faculty of Agricultural Engineering & Technology organized/Celebrated the International GIS Day on November 19, 2014.
- International Day for Geographic Information Systems (GIS) was celebrated at PMAS- Arid Agriculture University Rawalpindi on November 20, 2014. In this connection a seminar was also held with the objectives to create awareness about GIS in general public with providing platform for students & organizations to network for their carriers and to present their specialties and expertise.
- The Department of Food Technology Organized a Seminar on "Soy In Improving Human Health" on November 21, 2014

- The Department of Soil Science & SWC Organized a seminar on World Soil Day on December 05, 2014.
- A ten days training workshop on Water Resource Management for Baluchistan Farmers commenced at PMAS-Arid Agriculture University Rawalpindi on December 22, 2014,

WORKSHOPS, SEMINARS AND CONFERENCES ATTENDED BY THE FACULTY

INTERNATIONAL

1. Prof. Dr. Sarwat Naz Mirza, Chairman, Department of Forestry & Range Management attended International Forestry Week: Economic Valuation of Forest Resources at Jordan on January 26-30, 2014.
2. Dr. Irfan Ahmad Baig, Associate Professor, Department of Economics & Agri. Economics attended AgMIP Regional Research Finish Line Workshop at Tanzania on January 28 to February 03, 2014.
3. Dr. Muhammad Asif Aziz, Assistant Professor, Department of Entomology attended the Seminar on Sericulture Production and Management at South China University of Agriculture, Guangzhou, China on June 2014.
4. Dr. M. Moaeen-ud-Din, Assistant Professor, Department of Livestock Production & Management attended the Buffalo and Cattle Sequence Diversity and Molecular Evolution at Kansas City, Missouri, USA on July 20-24, 2014.
5. Dr. M. Moaeen-ud-Din, Assistant Professor, Department of Livestock Production & Management attended the Genomic Selection of Nili-Ravi Buffalo at Kansas City, Missouri, USA on July 20-24, 2014.
6. Dr. Riaz Hussain, Assistant Professor, Department of Veterinary Biomedical Sciences attended XXXth Congress of European Association of Veterinary Anatomists (EAVA) at Cluj-Napoca, Romania on July 23-26, 2014.
7. Prof. Dr. Riaz Ahmad, Director, Quality Enhancement Cell attended the 248th ACS National Meeting at San Francisco, USA on August 10-14, 2014.
8. Dr. Azeem Khalid, Chairman, Department of Environmental Sciences attended 25th IPRA General Conference “Uniting for Peace: Building Sustainable Peace Through Universal Values” at Istanbul, Turkey on August 10-14, 2014.
9. Dr. Ambreen Bhatti, Lecturer, Department of Horticulture attended International Horticulture Congress (IHC-2014) at Australia on August 17-22, 2014.

10. Dr. Tariq Mahmood, Assistant Professor, Department of Wildlife Management attended 3rd Regional Conference of Society for Conservation Biology-Asia Section (SCB ASIA 2014) at Hotel Equatorial, Melaka, Malaysia on August 19-22, 2014.
11. Dr. Irfan Ahmad Baig, Associate Professor, Department of Economics & Agri. Economics attended the 2nd International Conference on Computational and Social Sciences at Turkey on August 26-28, 2014.
12. Dr. Gulshan Irshad, Lecturer, Department of Plant Pathology attended the Training Course on Utilization of Indigenous Food Resources for Indigenous Food at Khon Khaen University, Thailand on September 1-27, 2014.
13. Mr. Muhammad Irfan, Lecturer, Department of Zoology attended the Writing in the Science at Stanford (Online) on September 02 – November 04, 2014.
14. Dr. Zahid Akram, Associate Professor, Department of Plant Breeding & Genetics attended Multiyear Course on Integrated Breeding at Zaragoza, Spain on September 15 – 26, 2014.
15. Dr. Azeem Khalid, Chairman, Department of Environmental Sciences attended 24th Annual Meeting of International Society for Exposure Science (ISES) at Cincinnati, Ohio, USA on October 12-16, 2014.
16. Dr. Abida Arshad, Assistant Professor, Department of Zoology attended In Silico Analysis of Mutations in PITX3 Gene at Qingdao, China on October 24-27, 2014.
17. Dr. Imtiaz Ahmad Khan, Associate Professor, Department of Pathobiology attended the Annual Meeting-2014 of American College of Veterinary Pathologists and American Society for Veterinary Clinical Pathologist at Marriott Marquis Hotel Atlanta Georgia, USA on November 08-12, 2014.
18. Mr. Saqib Majeed, Assistant Professor, University Institute of Information Technology attended the Workshop on Exploring MB Level Parallelism in H.264/AVC Encoder for Multi-Core Platform at Doha, Qatar on November 10-13, 2014.
19. Prof. Dr. Nadeem Akhtar Abbasi, Chairman, Department of Horticulture attended workshop on Innovative Extension Services to Improve Agricultural Productivity at Philippines on November 17-21, 2014.

20. Dr. Irfan Ahmad Baig, Associate Professor, Department of Economics & Agri. Economics attended ACIAR-CSU-UAAR Joint Training Program at Australia on November 15-23, 2014.
21. Dr. Azeem Khalid, Chairman, Department of Environmental Sciences attended the Managerial Training Workshop on “Integrated Resource Recovery Centre Approach” at Waste Concern, Recycling Centre, Dhaka, Bangladesh on November 23-26, 2014.

NATIONAL

1. Dr. M. Inam-ul-Haq, Associate Professor, Department of Plant Pathology attended International Conference of Pakistan Phytopathological Society at University of Karachi on January 05-08, 2014.
2. Dr. Munir Ahmad, Assistant Professor, Department of Entomology attended 2nd Biosafety Training Workshop for Young Scientists at Allama Iqbal Open University Islamabad on January 16, 2014.
3. Dr. Muhammad Naveed Tahir, Assistant Professor, Department of Agronomy attended International Seminar on Climate Change Adaptation Strategies to Ensure Food Security at University of Agriculture, Faisalabad on January 16-17, 2014.
4. Dr. Abida Arshad, Assistant Professor, Department of Zoology attended the Establishment of Club 25 and Islamabad BDO Network at PIMS, Islamabad on January 22, 2014.
5. Prof. Dr. Tariq Mukhtar, Chairman and Dr. Farah Naz, Assistant Professor, Department of Plant Pathology attended 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases: Challenges and Opportunities at University of Karachi on January 23-25, 2014.
6. Dr. Abdul Rehman, Assistant Professor, University Institute of Management Sciences attended Deans and Directors Conference 2014, Emerging Challenges of Business Schools in Pakistan at Serena Hotel, Islamabad on January 27-28, 2014.
7. Dr. Abida Arshad, Assistant Professor, Department of Zoology attended the Registration and Licensing of ICT Blood Banks at PIMS, Islamabad on February 18-19, 2014.
8. Prof. Dr. S. M. Saqlan Naqvi, Dean, Faculty of Sciences and Prof. Dr. Muhammad Gulfraz, Department of Biochemistry attended International

Conference of Biochemical and Chemical Sciences at Agriculture University Faisalabad on February 24-26, 2014.

9. Prof. Dr. Tariq Mukhtar, Chairman, Department of Plant Pathology, Dr. Shamim Akhtar, Associate Professor, Dr. M. Sajid Nadeem, Assistant Professor, Dr. M. Zubair Anjum, Assistant Professor, Department of Zoology and Dr. Munir Ahmad, Assistant Professor, Department of Entomology attended 34th Pakistan Congress of Zoology at BZU, Multan on February 25-27, 2014.
10. Dr. Badar Naseem Siddiqui, Associate Professor, Department of Agricultural Extension & Communication attended International Conference on “Emerging Horizons of Agricultural Extension for Sustainable Rural Development” at University of Agriculture Faisalabad on February 27-28, 2014.
11. Prof. Dr. Iftikhar Hussain, Dean, Faculty of Forestry, Range Management & Wildlife attended Symposium on Rangeland Resources of Pakistan: Current Status, Threats, Opportunities for Ensuring Food Security and Livelihoods in Context of Climate Change at NARC, Islamabad on March 05-06, 2014.
12. Dr. Tanveer Ahmad, Associate Professor, Department of Livestock Production & Management attended the International Livestock Dairy & Poultry Congress at Aiwan-e-Iqbal Complex, Lahore on March 11-12, 2014.
13. Prof. Dr. Abdul Saboor, Chairman, Department of Economics & Agri. Economics attended the Seminar on Food & Climate Change Campaigning Strategy at Best Western Hotel, Islamabad on March 12, 2014.
14. Dr. Ghulam Abbas Shah, Assistant Professor, Department of Agronomy attended 2nd National Conference on Advancements in Sciences & Research (ASR-2014) at COMSATS Institute of Information Technology, Vehari on March 17, 2014.
15. Prof. Dr. Ishfaq Ahmad Hafiz, Department of Horticulture, Dr. Tariq Siddique, Associate Professor, Dr. Ghulam Jilani, Associate Professor, Dr. Qaiser Hussain, Assistant Professor, Dr. Muhammad Akmal, Assistant Professor, and Dr. Shahzada Sohail Ijaz, Assistant Professor, Department of Soil Science & SWC attended 15th Soil Science Congress: Soil Management in Changing Climate at Islamabad on March 18-20, 2014.

16. Dr. Qaiser Hussain, Assistant Professor, Dr. Muhammad Akmal, Assistant Professor, Department of Soil Science & SWC and Dr. Muhammad Naveed Tahir, Assistant Professor, Department of Agronomy attended the Workshop on Biochar Climate Friendly Agriculture: Shifting Paradigms for Higher Precision and Efficiency at University of Agriculture, Faisalabad on March 24-27, 2014.
17. Dr. Tanveer Ahmad, Associate Professor, Department of Livestock Production & Management attended the National Conference on “Nutrigenomics: A New Science for Better Productivity of Livestock” at University of Veterinary & Animal Sciences, Lahore on March 26, 2014
18. Dr. Abdul Razzaq, Associate Professor, Department of Agronomy attended International Symposium on Strategies for Overcoming Food Security Problems Through Utilization of Rainfed Areas at University of Sargodha on March 26-28, 2014.
19. Dr. Abida Arshad, Assistant Professor, Department of Zoology attended Quality Management in Blood Transfusion Services at PIMS, Islamabad on March 26-28, 2014.
20. Ms. Tehsin Ehsan, Lecturer, Division of Continuing Education, Home Economics & Women Development attended Modern Techniques of Distance Learning at Allama Iqbal Open University Islamabad on April 9-10, 2014.
21. Dr. Muhammad Ansar, Associate Professor, Department of Agronomy attended the Workshop on Forages-Potential Bio-energy Producing Crops in Subtropical Environment of Pakistan at PMAS-AAUR on April 17-19, 2014.
22. Dr. Mubashrah Munir, Lecturer, Department of Botany attended One Day Training Workshop on Dendrochronology at PMNH Islamabad on April 22, 2014.
23. Dr. Muhammad Ansar, Associate Professor, Department of Agronomy attended the Training Course on Project Identification and Implementation Methodologies at Pakistan Planning and Management Institute, Islamabad on May 05-16, 2014.
24. Dr. M. Inam-ul-Haq, Associate Professor, Department of Plant Pathology attended 2nd International Biochar Workshop in Pakistan at University of Agriculture Faisalabad on May 12, 2014.

25. Dr. Qaiser Hussain, Assistant Professor, Department of Soil Science & SWC attended the State of the Art Training in Soil Survey Technology at Lahore on May 12-16, 2014.
26. Prof. Dr. Tariq Mukhtar, Chairman, Department of Plant Pathology attended International Conference on Stress Biology and Biotechnology Challenges & Management at University of the Punjab, Lahore on May 21-23, 2014.
27. Dr. Qaiser Hussain, Assistant Professor, Dr. Muhammad Akmal, Assistant Professor and Dr. Shahzada Sohail Ijaz, Assistant Professor Department of Soil Science & SWC attended the National Workshop on Innovations in Irrigation Water Management for Enhancing Productivity and Achieving Sustainable Food Security at PMAS-AAUR on June 02-05, 2014.
28. Prof. Dr. S. M. Saqlan Naqvi, Dean, Faculty of Sciences attended 2nd Conference on Emerging Trends in Bioinformatics and Computational Biology at Muhammad Ali Jinnah University on June 07, 2014.
29. Dr. Gulshan Irshad, Lecturer, Department of Plant Pathology attended National Training Course in Seed Mycology & Nematology at Federal Seed Certification & Registration Department, Islamabad on June 16-19, 2014.
30. Prof. Dr. Tariq Mukhtar, Chairman, Department of Plant Pathology attended World Mango Conference at the Islamia University, Bahawalpur on June 24-25, 2014.
31. Prof. Dr. Iftikhar Hussain, Dean, Faculty of Forestry, Range Management & Wildlife attended Water Sector Capacity Building and Advisory Services Project (WCAP): Strategic/Sectoral Environmental and Social Assessment of the Indus Basin (SSEA Project) at Islamabad on June 26, 2014.
32. Prof. Dr. Ishfaq Ahmad Hafiz, Department of Horticulture attended Global G.A.P/Organic Certification at PMAS-AAUR on August 5-6, 2014.
33. Dr. Abdul Rehman, Assistant Professor, University Institute of Management Sciences attended Two Days NBEAC Evaluator Workshop-2014 at HEC Regional Center Lahore on August 21-22, 2014.
34. Dr. Rahmatullah Qureshi, Associate Professor, Dr. Naveed Iqbal Raja, Assistant Professor and Zia-ur-Rehman Mashwani, Lecturer, Department of Botany attended 4th International and 13th National Conference of

Botany at Shaheed Benazir Bhutto University, Sheringal, Dir Upper on August 28-29, 2014.

35. Prof. Dr. Tariq Mukhtar, Chairman, Department of Plant Pathology, Dr. Munir Ahmad, Assistant Professor, Department of Entomology, Dr. Noshin Ilyas, Assistant Professor, Dr. Naveed Iqbal Raja, Assistant Professor and Zia-ur-Rehman Mashwani, Lecturer, Department of Botany attended 5th International Conference on Agriculture, Food Security and Climate Change at University of Poonch, Rawalakot on September 09-11, 2014.
36. Prof. Dr. Nadeem Akhtar Abbasi, Chairman, Department of Horticulture attended Seminar on Characterization of Native & Potential Mango Varieties in Relation to Ceratocystis Manginecans and Other Economic Traits at University of Agriculture, Faisalabad on September 10, 2014.
37. Dr. Azeem Khalid, Chairman, Department of Environmental Sciences attended the International Ozone Day “Ozone Layer Protection: The Mission Goes on” at Hotel Margala, Islamabad on September 16, 2014.
38. Prof. Dr. S. M. Saqlan Naqvi, Dean, Faculty of Sciences, Prof. Dr. Tariq Mukhtar, Chairman, Department of Plant Pathology, Dr. Abdul Razzaq, Associate Professor, Department of Agronomy and Dr. Noshin Ilyas, Assistant Professor, Department of Botany attended International Conference of Plant Sciences at GC University Lahore on September 22-24, 2014.
39. The Faculty Members of Economics & Agri. Economics attended the Conference on Road Map for Economic Growth of Pakistan at Marriot Hotel, Islamabad on October 22-23, 2014.
40. Dr. Muhammad Farooq, Chairman, Department of Sociology & Anthropology attended National Consultation on Research and Teaching of Conflict Study and Conflicts in Pakistan at Marriott Hotel, Islamabad on October, 28, 2014.
41. Dr. Muhammad Yaqoob, Assistant Professor, Department of Livestock Production & Management attended the Stakeholders Consultation Workshop on Findings of Dairy Rapid Assessment Studied at Dreamland Motel, Islamabad on October 28, 2014.

42. Dr. Noshin Ilyas, Assistant Professor, Department of Botany attended the Advances in Bioinformatics in Post Genomic Era at QAU, Islamabad on November 06, 2014.
43. Dr. Tanveer Ahmad, Associate Professor and Dr. Muhammad Yaqoob, Assistant Professor, Department of Livestock Production & Management attended the Facilitators on Farmer-Centered Diagnosis Using the Feed Assessment (FEAST) Tool at Islamabad Hotel on November 06-09, 2014.
44. Dr. Farah Naz, Assistant Professor, Department of Plant Pathology attended Two Days Workshop on National Seed Policy at Federal Seed Certification and Registration Department, Islamabad on November 12, 2014.
45. Mr. Arshad Mahmood Malik, Assistant Professor and Mr. Bashir Ahmad, Lecturer, Department of Economics & Agri. Economics attended the International Conference on Major Powers Interest in Indian Ocean: Challenges and Options for Pakistan at Sereena Hotel, Islamabad on November 18-19, 2014.
46. Dr. Muhammad Ansar, Associate Professor, Department of Agronomy attended National Consultative Workshop on 20th Conference of Parties to the United Nation on Climate Change at Hill View Hotel, Islamabad on November 19, 2014.
47. Mr. Zia-ur-Rehman Mashwani, Lecturer, Department of Botany attended 1st International Symposium on the Himalayas of Pakistan: Resources and Conservation Issues at Hazara University, Mansehra on November 27-30, 2014.
48. Prof. Dr. Abdul Saboor, Chairman and Dr. Irfan Ahmad Baig, Associate Professor, Department of Economics & Agri. Economics attended the 30th Annual General Meeting & Conference on Poverty, Inequality and Economic Growth at Pak-China Friendship Center on December 02-04, 2014.
49. Dr. M. Irfan Ashraf, Assistant Professor, Department of Forestry & Range Management attended GIS application in REDD + Projects of Forestry Sector at NCRD, Islamabad on December 04-06, 2014.
50. Prof. Dr. Ishfaq Ahmad Hafiz, Ms. Najma Yousaf Zahid, Assistant Professor, Department of Horticulture, Dr. Muhammad Imran Yousuf, Director, Division of Continuing Education, Home Economics & Women

Development and Dr. Muhammad Fiaz, Assistant Professor, Department of Livestock Production & Management attended one day Workshop on Saemaul Undong; Implication for Socio-Economic Development of Pakistan at Islamabad on December 06, 2014. The workshop was organized by Korea International Cooperation Agency (KOICA), official donor agency of the Republic of Korea. Prof. Dr. Rai Niaz Ahmad, Vice Chancellor, PMAS-Arid Agriculture University Rawalpindi was the chief guest on the occasion.

51. Dr. Irfan Ahmad Baig, Associate Professor, Mr. Nasir Mehmood, Lecturer and Mr. Bashir Ahmad, Lecturer, Department of Economics & Agri. Economics attended the SDPI's 17th Sustainable Development Conference at Best Western Hotel, Islamabad on December 9-11, 2014.
52. Prof. Dr. Sarwat Naz Mirza, Chairman, Department of Forestry & Range Management attended Climate Change Adaptation and Resilience at Serena Hotel, Islamabad on December 21, 2014.
53. Dr. Muhammad Farooq, Chairman, Department of Sociology & Anthropology attended the Seminar on Assessing Internal Democracy of Major Political Parties of Pakistan at Marriott Hotel, Islamabad on December 23, 2014.

PREPARED & DESIGNED BY:

MUHAMMAD SAQIB ABBASI
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