

**SOPs for the Office of Research, Innovation &
Commercialization**

Government College Women University Faisalabad



Standard Operational Procedures for ORIC,

GCWUF

Approved and discussed
Pl. add Ethical
Review committee
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PREFACE

Government College Women University Faisalabad (GCWUF) is a newly established institute that was upgraded in January 2013 by Higher Education Commission from Government College for Women, Faisalabad. The Office of Research, Innovation and Commercialization (ORIC) is the central office of the University to manage the research programs and linking them with industry and civil society. The ORIC manages university rankings and diversified research grants. The office promotes faculty interaction for multidisciplinary research and bringing research to public benefit. The office facilitates and engages with the postgraduate students and faculty for project proposal write-ups, budgetary planning, preparation of technical progress and financial reports, internal and external monitoring, scholarly publications and patent registration.

The ORIC arranges internship for students, promotes entrepreneurship and organizes Business Plan Competitions to promote business startups industry linkages.

The ORIC is also involved in activities through technology display at various Expos and relevant national forums.

The ORIC has a range of responsibilities. Therefore, a document needs to be developed that is relevant to policies, procedures and SOPs would make the working easier. Therefore the following pages will support the faculty, sponsors, reviewers and other stakeholders to prepare strategies for developing research projects.

1.1 Office of Research, Innovation & Commercialization (ORIC)

1.1.1 Purpose and mission of establishment

To elevate the universities as community builders and promote knowledge based economy, the HEC introduced the new Directorate of Research as Office of Research, Innovation and Commercialization (ORIC).

This directorate is established to develop and link the educational and research activities of the university with our social requirements. ORIC is also responsible for promoting quality of researches that meet the highest international standards and improve the stature of the university among the best research institutions".

1.1.2 Objectives of ORIC

- Improving integration of research and education at all levels of the university
- Improving recruitment and retention of top faculty.
- Play a part to manage university rankings.
- Search & manage multi-disciplinary research grants to coordinate research activities both in government and private sector to cater the need of society.
- Manage national and international internships for students and faculty.
- Link Academia with Industry to promote entrepreneurship and commercialization.
- Engage with the community through exhibitions and other social events.
- Implement HEC anti plagiarism policy at GCWUF.
- Arrange business plan competitions to promote business and enroll startups.
- Facilitate interim placements, engage foreign faculty through various programs.
- Share knowledge and technology transfer and arrange faculty exchange programs.
- Arrange Interim Placement of Foreign Ph.D. (IFPF), hire the services of foreign faculty sponsored from President's Program for Care of Highly Qualified Overseas Pakistanis (PPQP), Visiting Scholar Program and Foreign Faculty Hiring Program are also being utilized through ORIC.
- Capacity building of GCWUF faculty in core areas of curriculum planning, teaching and learning assessment strategies.

1.3 Staffing/ Human Resource details

- 1) Director (Full time/ Additional Charge)
- 2) Manager Resource Development
- 3) Manager University Industry Linkage
- 4) Administrative Assistant
- 5) Research Associate

1.3.1 Supporting staff

- 1) Three administrative assistants
- 2) One accountant
- 3) One human resource officer
- 4) One publication and communication specialist

1.4 Physical Infra Structure

At least 4 offices are required:

- 1) Office for Director
- 2) Office for Manager Resource Development
- 3) Office for Manager University Industry Linkage
- 4) One office shared by Administrative Assistant and Research Associate

All offices must be well furnished and equipped with necessary gadgets such as computers, phone and internet service.

1.5 Sponsors of GCWUF

The ORIC consistently makes efforts to expand resource base of the GCWUF. The current major sponsors at GCWUF include:

- 1) Higher Education Commission (HEC)
- 2) Pakistan Science Foundation (PSF)
- 3) Pakistan Academy of Sciences (PAS),
- 4) FDTTPC Endowment Fund Secretariat,
- 5) ICT - R&D Fund, Ministry of Science and Technology (MOST),

- 6) Govt. of the Punjab,
- 7) International Foundation for Science (IFS),
- 8) PAK-US Science & Technology Cooperation Program,
- 9) Japan International Cooperation Agency (JICA)
- 10) Third World Academy of Science (TWAS)
- 11) German Academic Exchange Service (DAAD),
- 12) International Food Policy Research Institute (IFPRI) — Pakistan Strategy Support Program (PSSP),
- 13) AUSAID,
- 14) USAID.
- 15) South Asian Network for Development and Environmental Economics, (SANDEE) South Asia Network for Economic Institutes (SANEI),
- 16) United Nation Industrial Development Organization (UNIDO),
- 17) Grand Challenges Canada,
- 18) Centre for Environmental Risk Assessment (CERA),
- 19) UK-AID,
- 20) Turkish International Cooperation Agency (TIKA),
- 21) COMSTECH-TWAS Joint Research Grant Program.

The ORIC also facilitates the faculty to seek grants for organizing seminars / workshops / conferences / symposia, grants for repair & maintenance of equipment, grants for upgrading of libraries, grants for scientific journals & travel grants from the diversified sources and sponsoring agencies.

1.6 Business Incubation

Women Business Incubation Center (WBIC) has been set up to develop an approach of faculty and students about innovation and commercialization.

The human resources at WBIC consist of:

- i) Executive Director
- ii) Assistant Director

For selecting incubating companies the candidate has to have repute and reasonable experience in the relevant sector, is not defaulter of any financial institution or any government duties or taxes.

The proposed business must have a good understanding of the market and competition, has pre-feasibility and strong growth potential, it should demonstrate scalable business potential with good financial conditions.

At least one full-time person needs to be appointed who is committed to company and have relevant professional experience and education.

1.6.1 Selection Committee

for incubators - select incubator company

1. Vice Chancellor, GCWUF Chairman
2. Director ORIC Member
3. Director Business Incubation Center, GCWUF Member
4. Relevant faculty member Member
5. Representative of HEC Member
6. Representative of Industry Member

The Selection Committee may conduct face to face interview of the applicant to evaluate entrepreneur's business prospects, strengths, potentials to manage her business and appropriateness to use WBIC.

1.6.2 Follow up program

The Business Incubator will make arrangements to facilitate the graduating incubatee after the exits by creating linkage with the scientists/researchers of the GCWUF to further improve the technology/product.

1.6.3 Revenue Generation for the incubator

- Incubator may charge each incubate a reasonable residency fee to cover utility, internet, telephone, building rent, stationary and building maintenance costs.
- Where university funds/customized services are utilized for product development and or commercialization, the incubator may acquire equity share in the company.
- Incubator management will ask the treasurer GCWUF to keep recurring budget for the on-going quarter in its current account and the rest of the money may be deposited in a savings account. Interest accumulated from the savings account will be considered as revenue generated for incubator.

1.6.4 Facilitating services to be provided by the WBIC, GCWUF

- BIC will provide entrepreneurs with well-equipped laboratories, extensive libraries, powerful computer systems, and technology expertise and subject-matter experts from the faculty.
- Assist in preparation of feasibilities of projects.
- Participate in securing financing for the projects.
- Ensure commercial and economic viability of coordinated projects.
- Assist in formulation of business and market plans.
- Participate in finding suitable markets for the products of the project.
- Facilitate in the removal of legal and or administrative hurdles in the implementation of coordinated project
- Facilitate in getting patent for the product and intellectual property right to the scientist/inventor of the product.

1.6.5 Exit Policy

The incubate company will be graduated out of the incubator once it meets the following criteria:

- Incubatee might have spent about 18 months at the incubator. If the project has not completed yet, an additional 2-6 months could be given
- Incubatee has achieved milestones agreed in the business plan. Specifically, the company has transferred technology to another party or has a solid plan that will allow it to operate successfully outside the incubator.
- Space requirement of the incubatee company exceeds incubator capacity.
- If incubatee fails to meet the quarterly targets twice in a calendar year.
- If the review committee decides that the project is no longer viable.
- If incubatee violates the tenancy agreement.

1.6.6 Outreach Activities

Along with regular internship, Awareness and Technology Transfer Campaigns/ Events are a regular feature of outreach activities. The Government of the Punjab has launched a special program "Punjab Youth Internship Program" in which professional degree/diploma holders are engaged in the relevant activities through ORIC. Research commercialization, Technology Transfer and Outreach activities are carried out through

Exhibitions, Festivals, Business Plan Competitions, Showcasing of Technologies, incubation of Startups and new companies, providing consultancies career development, product commercialization and registration of patents under IP policy to promote entrepreneurship culture.

1.7 Research Projects

The Office of Research, Innovation and Commercialization (ORIC), GCWUF shall try to promptly email all calls for proposals to the individual faculty members. All proposals routed through ORIC. When funded (National/International), the agreements are signed by the Vice Chancellor and ORIC. All funding is made in the name of the university and not in the name of any individual or institute or department or sub-campus and the Treasurer's office maintains the accounts.

1.7.1 Who could be a Principal Investigator, Project Manager, Team Leader etc

The GCWUF faculty members (Part Time, Full Time, BPS, TTS, Adhoc, Contractual etc), receiving any part of their salary through the university or using any university resources or facilities, can submit research proposals as Principal Investigator (PI), Project Manager (PM), Team Leader (TL) through ORIC. The Principal Investigator (PI), Project Manager (PM) is responsible for the design, scientific conduct, and administrative conduct and reporting of a research. Training / community service, consultancy, commercialization or technology transfer project, funded by any sponsoring agency. The Co-Principal Investigator (Co-PI) complements the project activities. The PI exercises the financial powers as representative by the university authorities from time to time. The PI personally participates in the project activities to a significant degree and dedicates time in percentage for the project activity. The P.I. exercises the financial powers and in the absence of PI the financial management is delegated to Co-PI with the approval of the Vice Chancellor.

1.7.2 Preparing, submitting and processing of Proposals

The call for proposals from any national and international funding agency is circulated through email among the faculty members of GCWUF. The faculty members prepare the proposal and budget estimates on the prescribed format and submit to ORIC. An initial scrutiny/review is carried out at ORIC and after incorporating the suggested changes,

the proposal is processed for signatures of the Vice Chancellor on the proposal & seeking approval for submitting the proposal to funding agency. Signed research project proposals are sent to funding agency for further processing through a covering letter from Director, ORIC. Copy of this letter is also sent to faculty member/Principal Investigator for information. The funding agency sends acknowledgement and initiates the review process by the experts. The expert may recommend the proposal either accepted as such /or with major or minor revision or may reject the proposal, which is communicated to the proposer and ORIC also. In case the project is recommended the comments/ changes suggested by the reviewers are communicated for revision and the PI re-submits the revised proposal after getting fresh endorsement from the Vice Chancellor through ORIC.

As a project is approved, an approval letter is issued from funding agency with the copy of agreement which has to be signed by the Project Investigator and the Vice Chancellor. After endorsing his/her signatures, the P.I. submits the agreement for the signatures of the Vice Chancellor and it then sent to the sponsoring agency for release of project funds. The P.I. then requests the Treasurer's Office for opening of a Bank Account. A bank account is opened by the Treasurer Office and information is sent to the funding agency and the P.I. First installment is released from funding agency and cheque is received in Treasurer Office. Cheque is submitted in bank account by the Treasurer Office and is notified to the Principal Investigator and ORIC.

After completing the one year of project implementation, Principal Investigator prepares annual technical and financial report on prescribed format of funding agency and submits to funding agency and a copy is also received in ORIC. The request for 1st year honorarium is submitted to Registrar Office by Principal Investigator. The Registrar Office forwards the request of Principal Investigator to ORIC for comments. The Registrar Office the request to Registrar Office after checking that reports for 1st year has been submitted or not, overhead charges paid or not. Same is submitted for 2nd or 3rd year cases of honorarium.

Due to some reasons if there is any delay to complete the project activities, a request for extension in project life is sent to funding agency by Principal Investigator through ORIC, funding agency extends the project life for a specified period without any financial liability. After evaluation of final reports, ORIC allows to utilize the amount of honorarium as final payment by Principal Investigator and Co-Principal Investigator.

After successful completion of the project, the permanent items purchased out of the project funds are ensured by PI to transfer to department/institute with proper documentation/ stock entries. Invention Report based on the findings of the project is send to ORIC for onward submission to BIC or Patent registration.

1.7.3 Responsibilities of PI, Co-PI, PPI

The PI/Co-PI/PPI prepares the estimated budget and justification for the project activities within allowable cost of the expected donor.

- The PI/PPI is authorized for amendment in the proposed budget before final approval but is not allowed for any budget re-adjustment without prior permission of the funding agency after approval.
- The PI/PPI is bound to follow the time frame as committed in the project document unless special permission is granted by the funding agency with logical reasons.
- The PI/PPI is not allowed any spending prior to an award. However, when project is awarded but funding is delayed; loan may be requested from the university through ORIC to kick start the project.
- The PI/PPI is not allowed to use funds after the termination of the project. If any project activity is pending due to one or the other reason, special request is sent to the funding agency through ORIC for extension of the project duration without any financial liabilities to complete the task.
- It is mandatory for the PI/PPI to document project income (fee from services performed, fee collected from registration for Conferences/Workshop/Seminar/Symposia or income generated from sale of the product developed with the project funds and expenses for onward sending to the sponsoring agency, if required under the agreement along-with financial report of the project duly signed by the Treasurer's Office. If there is no proper arrangement for accounting the project income in the project document, request for special arrangements is routed through ORIC for doing the needful by the Treasurer's Office.
- The PI/PPI is bound to follow the SOPs notified by ORIC/University authorities after seeking approval from the competent authority.
- Appointment of Research Officer/Research Associate/Research Assistant/ Research Fellow is made as provided in the project document.

- For hiring of vehicle for tours in connection with the project activities expenses will be met out of the funds provided in the project document.
- The PI/PPM is to follow the Traveling Allowance (TA) and Daily Allowance (DA) rules/SOPs for charging TA/DA for her and for research staff as prescribed under the rules/SOPs. Expenses of TA/DA for the project team will be met out of the funds provided in the project document. The PI/PPM is not allowed to exceed the funds allocated in the project document for these purposes.

The PI/PPM, after the successful completion of the project is to submit permanent items/equipment inventory report (with complete detail of permanent items/equipment purchased out of the project funds, cost, date of purchase, workability, No. of units, etc) to ORIC for funding agency approval to transfer the permanent items to the concerned department. After receiving consent from the funding agency permanent items, purchased out of the project funds are transferred to the department/ institute and the entry record on the stock register is sent to the ORIC and is made part of the project file.

1.7.4 SOP's for recruitment of Research Associates /Fellows/ Officers

To facilitate the researchers and smoothly run the projects, SOP for recruitment of Research Associates / Fellows/Officers for different research projects:

- a. Project Manager/Team Leader/Principal Investigator (convener)
- b. Rep. of Dean/Director of the Faculty /Institute concerned
- c. Rep. of Chairman of the department concerned
- d. Registrar or her Nominee

1.7.5 Responsibilities:

- 1. The Project Manager/Team Leader/Principal Investigator will be responsible for getting approval of the case from Vice Chancellor and advertisement of position/post in Campus News/National Newspapers, as per requirement of the funding agency.
- 2. The applications will be received by concerned Project Manager/Team Leader/PI and will be processed within one week after the last date of submission of applications.
- 3. The committee will conduct interview of the candidates and send recommendations to the Vice Chancellor for approval within one week of the date of interview.
- 4. After getting approval of the case, the Registrar Office will issue offer letter within one week from the receipt of approved case.

5. The process of recruitment will be started by the Project Manager/Team Leader/PI concerned immediately after signing/approval of project so that the Res. Assoc. / Fellow/ Officer may join his/her duties from the date of commencement of project.
6. In case of resignation by Research Associate/Fellow/Officer, the Project Manager / Team Leaders/Principal Investigator may start the process for recruitment of new Research Associate/Fellow/Officer within 2-3 days from the date of receipt of notice of resignation from Research Associate / Fellow / Officer and approval by the Vice Chancellor.
7. The above mentioned recruitment process should be completed within one month from the date of commencement of case by Principal Investigator.

1.7.6 Research Misdemeanors

The fake results/ data, ideas, text, pictures without permission and giving appropriate credit to the source will be considered as research misconduct. Such misconduct is handled by the Ethics Committee or other special committee constituted for this purpose by the competent authority. The PI/PM/TL is illegal to engage in any activity that creates a conflict of interest i.e. salary or other payments/ gifts received for services, ownership, equity interests and intellectual property rights, copyrights and royalties from the rights, other than royalties received through the university. If such a situation arises the ORIC following the university rules and regulations probes in, reports to the authorities, and resolve the issues as per agreed terms and conditions.

1.7.7 University Logo

The PI before using the university name or logo will have to follow the standing instructions for this purpose. For example, for the sale of any product developed/ manufactured out of the project funds, or issuance of certificate/ shields with university logo to the participants of the Workshop /Seminar /Conference /Symposia organized from the project funds, prior approval from the competent authority through ORIC is mandatory. The ORIC through all possible means, will facilitate to organize such events in a befitting manner.

1.7.8 Un-spent funds after Termination of Project

The PI/PM is not authorized to utilize/spend project funds after the termination /expiry of the project life. He/she will request the Treasurer to transfer the unspent balance in

favor of the funding agency, The ORIC will help in settling of financial obligations, Pendency in this respect is not appreciated.

1.7.9 Policy for Purchases

All purchases are made following rules and rates prescribed by the university (following PPRA Rules, Govt. of the Punjab) through Directorate of Procurement and Inventory Control. Any payment in violation of standing instructions is not processed. Membership & subscription fees needed by the P/PM/TL for attending a professional technical meeting related to funded project, is allowed provided it is specifically budgeted and provided in the project document. The PI is to follow the rules and regulations of the funding agency and standing instructions/purchase policy of the university (regarding registered firms with NTN, Sale Tax Number, Contract rates specified for the special items) before purchase of any permanent and consumable items, and hiring of contract/contingent staff or hiring of students etc.

1.7.10 Cost Sharing

The P/PM should mention any "cost sharing" (the portion of project expenses borne by the university, not by the funding agency) in the project document. The cost sharing would be mandatory, where the university must contribute towards the project otherwise funding agency will not award the project or voluntary, which is identified in the proposal for which funding is not being requested from the funding agency. Matching grant is a requirement that grant funds be matched in some proportion by the grant recipient and the university may offer matching grant when it is a condition of receiving an award.

1.7.11 Time sharing

If salary or some part of the salary is charged out of the project funds, the P/PM/TL will document the time spent by her or any of the project staff for the project activities, which is duly certified by the competent authority. Time spent in the project is expressed as a percentage of the total time on all work related activities. The PI will request to ORIC and case will be processed for certificate by the VC / Competent Authority accordingly for onward submission to concerned funding agency.

1.7.12 Obligations for handling Human and Animal Subjects

The PI will follow legal and ethical obligations to ensure that human and animal subjects (including new drugs, medical, radiological engineering, physiological, behavioral, sociological and nutritional studies involving human tissues or blood, as well as images, questionnaires, interviews etc) are treated responsibly. The PI/PM will be responsible for the strict compliance/implementation of Bio Safety Protocol

1.7.13 Monitoring and Evaluation

The staff at ORIC will coordinate and facilitate the monitoring teams constituted by the sponsoring agencies for GCWUF projects. The PI is bound to answer all the queries raised by the monitoring team(s) regarding timely achievement of the time bound targets. The ORIC will make efforts to resolve the issue(s) during the project execution or during the visit of monitoring team(s). In addition, ORIC will start Internal Monitoring and Evaluation of the projects through its own staff

1. The ORIC staff will write a letter to remind the PI for submission of reports 4 weeks ahead of due date for submission of technical and financial reports and will follow up to ensure timely submission of reports.
2. Director ORIC will endorse his/her comments on quality and achieved targets of the projects within the given timelines, before sending the reports to the funding agencies.
3. Honorarium to the PI will be admissible on successful completion of the project following the SOPs of the funding agency.
4. The PI will submit a Procurement Plan to Directorate of Procurement and Inventory Control (DPIC) and the DPIC will ensure that ORIC is represented in the procurement.
5. The staff at ORIC would give random and structured monitoring checks to project activities and documents.

1.7.14 Documentation of the Project

It will be mandatory for the Principal Investigator (PI) to correspond with the sponsoring agency through ORIC. The ORIC will establish a Data Management Unit for each and every activity carried out at ORIC and data log for the project (On-going, Submitted or Completed) progress and any correspondence is maintained in the form of file and computerized data base (Micro Soft Access/Specialized Software).

The PI will provide all the relevant information (extension in the project life, termination of the project etc.) to ORIC well in time.

1.7.15 Remuneration to the Project Team

Remuneration/honorarium will be admissible on the recommendation of Director ORIC when funds are provided in the budget of the approved project, satisfactory reports are received from the funding agency on the Technical and Audit Reports, overhead charges are paid to the university. After completion of each project year and completion of the explained checks, the P.I/PM will apply for the grant of remuneration/honorarium, which will be notified after recommendation of Director ORIC and approval from the Vice Chancellor. The final year remuneration/honorarium will be recommended on the production of documentary evidence that unspent balance has been refunded to the funding agency and permanent items have been transferred to the Department/ Institute through stock entries and there is no pending issue with the sponsoring agency.

1.8 Policy for Bio-safety

In terms of section 8 of the Pakistan Bio-Safety Rules 2005, notified vide No. S.R.O. (I) 336 (1) 2005 dated: 21-4-2005, the Competent Authority (VC /Chairman IBC) will constitute an institutional Bio-Safety Committee (IBC) to perform the functions as laid down under section 9 of the Pakistan Bio-Safety Rules, 2005.

The IBC will recommend general Bio-Safety Protocol for the researcher and all PIs, Co-PIs, students, project staff, laboratory technicians with other researchers or students dealing with biological agents will follow the legal procedures of registration and licensing for handling the biological material or import/export of material (export control Act-2004).

The PIs will seek permission from IBC through ORIC to initiate work on Genetically Modified Organisms (GMOs)/transgenic plants. The ORIC will also assist the PIs to respond to any funding agency ensuring the implementation of national bio-safety guidelines and availability of bio-safety/bio-security facilities at GC W U F as specified under bio-safety rules 2005 (SRO-336(1)2005).

1.8.1 Institutional Bio-Safety Committee

General lab safety protocol prescribed by Institutional Bio-Safety Committee (IBC)

1. Appropriate hazardous, toxic, inflammable labels etc shall be displayed outside every lab where such materials are placed and/or used.
2. It will be made sure that all the containers are labeled properly. The labels on bottles will be checked before removing their contents. Note: The hazardous chemicals by definition involve any substance, which can cause physical or physiological damage to humans or surrounding environment. The lab safety levels and responsible person's name shall be displayed on the opening door of every laboratory. It will be the duty of every PI / Faculty member that they have to inform the ORIC for their biological safety level.
3. Inflammables, acids, corrosives and carcinogenic material shall be placed at separate places in the lab. All ethanol/methanol or inflammable items will be stored in opposite to laminar airflow or gas burner points. Such chemicals, including acids or corrosive materials will be stored in the cabinets close to the ground.
4. All the inflammable or highly reactive compounds like methanol or SDS will be opened in fume hood to avoid respiratory tract damage.
5. Every student and technician in the lab shall get 2 hours, mandatory training arranged by the university.
6. Every lab shall have a responsible person in addition to PI for chemicals.
7. Awareness shall be developed among researchers in lab meeting about lab safety.
8. Safety officer and committee will be responsible to implement the safety measures.
9. Every lab shall be equipped with safety goggles. All the researchers using UV lights, heating/boiling liquids on hot plates shall use safety goggles.
10. Every researcher shall use latex gloves to deal with carcinogenic, corrosive and hazardous microbes.
11. All PIs shall purchase autoclavable bags for autoclaving microbes, transgenic animals and plants, before discarding them in regular trash.
12. A worker using the instrument/chemical will be responsible for personal safety will not touch any equipment or instrument if he/she is not trained for it. Laboratory supervisor or the PI will be asked for help.

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13. Lab staff shall get training for work safety in the lab. If they do not understand a direction or part of procedure, they are guide to ask the teacher /safety person before proceeding with the activity.
 14. No researcher should work alone in the laboratory. Supervisor should be informed which working in the laboratory alone.
 15. When first entering the lab, equipment/chemical or instrument should not be touched with naked hands. Permission should always be sought out from the supervisor.
 16. Only such experiments are performed that are authorized by the supervisor. One cannot start work if he/she is not authorized.
 17. Eating and drinking in the way laboratory shall be strongly prohibited.
 18. Practical jokes and pranks are very dangerous and shall be strictly prohibited.
 19. It will be made sure that lab is well ventilated and in case of gas leakage or electricity problems security will be informed immediately.
 20. All workers will be advised to remain alert and work with caution and inform teachers of co-workers are not working safely.
 21. Use of freezers storing ethano/enzymes/hazardous chemicals or microbes will be prohibited for food storage. Every microwave and freezer in the laboratory could be labeled with "No food items here".
 22. Researchers wearing contact lenses shall be warned for exposure to UV light or flames due to chemicals burning.
 23. Work area will be kept clear of all materials except those needed for the work. Proper dress will be used during laboratory activity and lab coats will be worn. Coats should be hung in the hall or placed in a locker. Extra books, purses, etc. shall be kept away from equipment that requires air-flow or ventilation to prevent overheating. As long hair, dangling jewelry, and loose or baggy clothing are a hazard in the laboratory's long hair must be tied back, and dangling jewelry and baggy clothing must be secured. Shoes must completely cover the foot. No sandals will be allowed while working.
 24. Any chemical in the lab shall not be touched or smelled.
 25. Drinking water from lab sink is strongly prohibited. Every sink shall have the note, "No Drinking Water".
 26. Pipette will not be sucked with mouth. Always proper equipment shall be used to suck chemicals.

27. Un-used chemical will not be returned to the original bottle and shall be transferred to a new bottle and mentioned the date of use and removal.
28. Glassware shall be examined before each use. Chipped, cracked, or dirty glassware will not be used.
29. The glassware may shatter if hot glassware is used in cold water and shall be avoided.
30. Container that is being heated will not be look into because the vapors may be dangerous and can damage eyes and skin.
31. If piece of equipment fails while being used it will be reported immediately to the lab assistant or tutor. The problem will not be fined because one could harm herself and others. Always the instructor shall be informed of a thermometer is broken or mercury is to be cleaned.
32. While leaving the lab unattended ignition sources shall be turned off and doors locked.
33. It will be prohibited to look into a laser beam.
34. While adjusting high voltage equipment or a laser, which is powered with a high voltage supply, only one hand shall be used and the other hand will be best placed in a pocket or behind the back. This procedure eliminates the possibility of an accident, where high voltage current flows up one arm, through chest, and down the other arm.
35. Using extension cords shall be avoided and must use one, obtain a heavy-duty one that is electrically grounded, with its own fuse, and is installed safely. Extension cords should not go under doors, across aisles, be hung from the ceiling, or plugged into other extension cords.
36. The cylinders containing explosive/inflammable gases must be fixed or encaged properly with certain support, otherwise these may collapse resulting in severe accident.
37. The labs must be equipped with smoke detectors to cope with any fire related accident at first hand.
38. Every lab shall have more than one entrance/exit to escape any kind of accidental blockage.
39. Emergency rescue agencies (1122, fire brigade, Edhi Trust etc.) contact numbers must be posted/hanged in every lab.
40. It will be made sure that electric power buttons for lights, fans, air conditioners and computers, etc., are properly switched off, before leaving the lab to avoid any chance of short-circuiting, due to prevailing electric power fluctuations.

41. Cell phones shall not be used while dealing with inflammable chemicals and Hi-Tech equipment as these may act as source of ignition and electronic signal interference respectively.

B-Waste Disposal.

1. Every lab shall have waste containers in the lab, with waste bags placed in every waste disposal container such as:
 - i. A small container for sharp objects, like blades, needles etc.
 - ii. A big container for broken glasses.
 - iv. A solid waste container for toxic chemicals (such as phenol), used tips & tubes.
2. Every container shall be properly labeled
3. Chemicals shall not be poured into sink
4. Chemicals shall be [REDACTED] according to their appropriate waste disposal procedures.
5. Gloves shall be used when dealing with waste of hazardous chemicals and microorganisms.
6. Every researcher shall have small trash boxes on his/her table.
7. Broken glass shall not be handed with bare hands. Brush and dustpan shall be used to clean up broken glass. Broken glass shall be placed in the designated glass disposal container.
8. Spills shall be cleaned immediately.
9. *Ethidium bromide* is highly carcinogenic chemical shall never be discarded into sink
 The powdered form of *Ethidium bromide* is considered irritant to eyes, upper respiratory tract and skin. The Green Bag Kit containing a "tea bag" shall be utilized for its disposal. This tea bag can be left in *Ethidium bromide* buffer container and after 3-4 days (when tea bag absorbs all the *Ethidium bromide*) the buffer can be discarded into sink. All sharp blades used for cutting the *Ethidium bromide* stained gels shall be kept separate. Solid *Ethidium bromide* gels shall be dried in a hood. The gels with less than 0.5ug/ml of *Ethidium bromide* can be discarded into regular trash after drying. The *Ethidium bromide* areas shall be kept separate from other areas. The

pipettes, trays and containers used for *Ethidium bromide* should not be used for other applications.

10. Phenols/ Corrosive Chemicals: Phenol should never be discarded into sink. All phenol tips/liquid/solid shall be discarded separately. Phenol is irritant to eyes, skin and mucous membranes. Amberlite™ XAD4™ polymeric adsorbent is used in several locations around the world to remove phenol from wastewater. Even high concentrations of phenol (20,000 ppm) in wastewater have been effectively treated. Regeneration of the resin is accomplished in several ways: 1% caustic or solvents such as acetone, methanol and formaldelyde.

11. Wherever possible, use minimum amount of chemicals to avoid a lot of waste production. The chemicals, like silver stain or liquid polyacrylamide gel, shall be properly labeled and shall not be disposed in regular trash. Solid PAGE gels can be discarded in regular trash. However, other hazardous chemicals shall be stored separately and the university should manage their disposals. If a chemical is inactivated by high temperature, cautions should be taken before autoclaving to avoid volatile compounds production.

12. Microbial Safety: All the bacterial/fungal/other microbial cell lines can never be discarded in sink. Add 5ml of 10% commercial bleach in 100 ml of culture shall be left overnight on bench and then discard in sink. For solid microbial waste disposal, The tips shall be autoclaved etc in an autoclavable bag and then discarded into regular trash.

C- First-Aid in the Lab.

1. First aid kit must be made available in every lab.
2. It shall be made sure that every student knows about fire extinguishers in the department or if possible in the laboratory. Every department have at least 2 fire extinguishers, which are annually monitored for their function.
3. If any chemical splashes in eye(s) or on the skin shall be immediately flushed with running water for at least 20 minutes.
4. If phenol contacts the skin, workers should immediately wash the affected areas with soap and water. No phenol wastes shall be disposed in regular trash. All the projects, involving recombinant DNA (rDNA) conducted at the univ, must comply with the univ. Biosafety Guidelines. Failure to follow the university guidelines can result in the

suspension, limitation, or termination of projects fund for all rDNA research at the university. In addition, any intentional failure to comply has the potential to be defined as academic misconduct as outlined by university policy. University should have developed a policy and a protocol, outlined in this fact sheet, through which investigators may obtain the information to work with transgenic plants. As an investigator working with transgenic Plants, it shall be the responsibility of the user to meet these requirements.

1. As part of the university policy, one must register and get the approval from the Bio-Safety Committee before doing any experiment in the field with the transgenic plants.
2. To dispose off transgenic material, It is required that transgenic plants and materials from transgenic plants, including seeds, must be inactivated prior to disposal, to prevent accidental environmental release. Typically, autoclave treatment is employed for transgenic plants and seed inactivation.
3. Intra- or inter-departmental transfers of rDNA and transgenic materials including transgenic animals and transgenic shall be prohibited without the written approval of the IBC.
4. It shall be required that significant research-related incidents be reported immediately to the Institutional Bio-Safety Committee. Such incidents include research-related accidents and illnesses as well as inadvertent release or improper disposal of bio- hazardous or recombinant DNA materials.
5. All the researchers, transferring any transgenic material from outside the country shall register with the university and take approval from IBC before growing at campus green houses or fields.
6. All the transiently infected plants (with virus/bacteria/fungi or any pathogenic species) shall autoclaved before disposal.

If the P/PM is the prime recipient of the project and a part of the project is to be carried out at other institute with the collaboration of the scientist(s) over there, the sub-recipient can receive funding in the form of a sub-award from the prime award. The P/PM will mention in the project document and decide the share for sub-award before the approval of the project. The P/PM will ensure in the project document that sub-recipient must comply with all terms and conditions of the Donor agency/parent institute of the PI with prime award. The P/PM of prime award will ensure and manage timely submission of reports and response from the recipient of sub-award.

Likewise a faculty member at GCWUF could be a sub-awardee with other organization. Under both situations a separate agreement shall be executed with clear scope of work, budget and time lines.

1.9 Policy for HEC Approved Ph.D. Supervisors

The faculty members are encouraged to register as HEC approved PhD supervisors to become eligible for supervising HEC Scholars under Indigenous Fellowship Programs. The PhD faculty members apply on prescribed proforma and submit two copies in hard form after getting endorsements from Director/Chairman and Dean of the Faculty. After preliminary examining at ORIC, the application is submitted to HEC by ORIC and applicant sends soft copy to the concerned office at HEC. The faculty members can apply throughout the year under this program. When an applicant is selected as HEC approved supervisor, the HEC sends her an acknowledgement letter and upload the name at HEC website. Using the pin code provided by HEC, HEC approved Ph.D. supervisor will update her status on the HEC website from time to time.

The HEC Fellowship awardees must be supervised by the HEC approved supervisors. An approved supervisor is solely responsible for the performance, attendance and building capacity for research of the scholar. It will be reported to HEC and ORIC as and when required. No request of the scholar is entertained without the consent of the supervisor.

1.10 Policy Guidelines for Submission of Research Publications

For the research findings to be published in the scientific journal of well repute, ORIC has devised the following mechanism.

All faculty members at home and abroad shall be directed to show affiliation to GCWUF in their publications.

No research publications (Research Paper, Book or Book Chapter, Technical Report Lab. Manual, Monograph, Articles, Abstracts, Proceedings, Paper presented in conferences and oral presentations etc.) would be credited to faculty members unless it is registered at ORIC with a specified number. Office of Research, Innovation and Commercialization (ORIC) has started issuing publication registration number through the email address, manuscript shall be sent at the given email and get the response (publication registration number) on the same day.

1.11 Policy guidelines for availing Travel Grants

- The requests for travel grants to various funding agencies to present the work in international conferences are processed through ORIC.
- From the previous record maintained at ORIC, it is verified that the applicant is not proceeding abroad more than twice a year.
- For oral presentation before submitting the case to the funding agency, the following documents are ensured by ORIC to be attached with the application:
 1. Acceptance letter by the host institute/organizer for oral presentation.
 2. Full length paper with plagiarism report.
 3. Soft copy of the paper to be presented
 4. Signature stamp from head of the department/institute.
 5. Brief CV of the presenter.
- If all the relevant documents are attached according to the funding agency requirements, case is sent to the Vice Chancellor for seeking permission for onward submission.
- After approval from the Vice Chancellor, a letter is sent to the funding agency along with all the relevant documents attached by the applicant. • The applicant as well as head of the department/institute is also informed accordingly.
- After successful completion of the tour, a task completion report is requested from the recipient for onward submission to the funding agency and for ORIC record.

1.12 Policy for Procurement & Inventory Management

All purchases are made following rules and rates prescribed by the university (following PPRRA Rules, Govt. of the Punjab) through Directorate of Procurement and Inventory Control. Any payment in violation of standing instructions is not processed. Membership & subscription fees needed by the PI/PPM for attending a professional technical meeting related to funded project is allowed provided it is specifically budgeted and provided in the project document. The PI is to follow the rules and regulations of the funding agency and standing instructions/purchase policy of the university (regarding registered firms with NTN. Sale Tax number, Contract rates specified for the special items) before purchase

of any permanent and consumable items, and hiring of contract/contingent staff or hiring of students etc.

1.13 Policies and Procedure for HEC Funded Indigenous Scholarships

1. HEC announces the call for Indigenous Ph.D. Fellowship Program through advertisement.
 2. The interested students apply online independently.
 3. HEC announces the result of scholarship and list of scholarship awardees is displayed on HEC website.
 4. HEC issues debit advices to the students and send their cheques of first installment to GCWUF.
 5. The Treasurer Office, GCWUF sends information to ORIC with dates, duration and amount of cheques.
 6. The student submits the debit advice to ORIC for the release of her installment
 7. ORIC notifies the installment of student after checking the status of installment received.
 8. On the completion of one year, students submit their progress and funds utilization reports to ORIC through their supervisors and Chairpersons/Directors, which are forwarded to HEC.
 9. HEC evaluates their reports and release their next installment, which is processed accordingly.
 10. On successfully defending their synopsis and thesis, the supervisor of the student apply for honorarium, which are forwarded to HEC after monitoring the reports and notifications.
 11. On completion of Ph.D, completion report with thesis is forwarded to HEC
 12. If student faces any problem to complete her Ph.D on time, then applies for extension, which is processed after checking the status of research.
 13. IRSIP training of HEC scholarship awardees students are also processed through ORIC.
- SOP for the followings to make in line with the other institutions and for smooth running of research activities of the Ph.D. awardees:
- a) The awardee, who is already in government service, may be considered for the purpose equivalent to the status holding in his parent department

- b) Those, who are not in government service, may be considered for the purpose equivalent to the status of BPS-17.
- c) The faculty of TA/DA to the PhD. Scholarship awardees will be subjected to the certification of the Supervisor, Chairman and Dean/Directors concerned that the touring is essential for the research studies of the student. The expenditure shall be incurred from head "Support to University" provided for Tuition fee, reference books, in case of 5000 Scholars Program and Grant for Development of Department in case of 200 and 300 Scholars Program.

1.14 Guidelines Organize Seminar, Workshop, Conference and Symposia

Different funding agencies provide financial support to conduct seminars/workshops/symposia/conferences, the request for funding is floated by the faculty member/organizer on the prescribed proforma and after seeking approval from Vice chancellor, the receipt of funds, the applicants are informed accordingly by ORIC. He /She operates /utilizes funds with the intimation to ORIC and copy of fund utilization report is submitted at ORIC for record and for onward submission to the funding agency.

1.15 Student Internship

SOP Regarding Placement of Student for Internship

1.14.1 Before commencement of last semester of undergraduate students, Govt. Research & Extension Institutes/Private Sector is requested for the placement of students in their institutes/firms.

1.14.2 Consent of the students is also kept in consideration before the placement.

1.14.3 After seeking the demand of the host Institute and keeping in view the preference of the student, information on the prescribed proforma is compiled:

- 1.14.3.1 Name of student, Father name o Registration No / Department
- 1.14.3.2 Email address
- 1.14.3.3 Cell No. or contact No.
- 1.14.3.4 Domicile District
- 1.14.3.5 Preferred place for internship

1.14.3.6 Dist./Tehsil for placement

1.14.4 Department/Institute/Faculty wise monitoring-cum coordination teams are constituted to follow up the progress of the internees and resolve the issues (if any).

1.14.5 A prescribed evaluation sheet is sent to Host Institute to evaluate the performance of the internee.

1.14.6 A work done / task completion report is prepared by the internee and is counter signed by the Internship Station Supervisor (ISS) & Head of the Host Institute for onward submission to GCWUF.

1.14.7 After successful completion of the internship, duly signed report is submitted by the internee at GC W U F in the relevant department / institute & is evaluated at department / faculty/ Institute level followed by presentation and oral exam. The duration and distribution of the marks is appended.

1.14.8 After presenting the task completion report publicly (in seminar), the result of the student is sent to Controller of Examinations, following the grading system of GCWUF for notification.

1.14.9 Grade is reflected in the transcript of student.

1.14.10 In case of international student, the internees are provided lodging / boarding on free of cost basis while living expenses are borne by the internees. Security and other facilities are also provided to the internees.

1.15 Punjab Youth Internship Program

The Govt. of the Punjab has initiated a special program "Punjab Youth Internship Program" with the aim to enhance the competencies & skills of the professional degree/diploma holders by placing them in the institutes of their relevant discipline. Private sector has stepped forward for the capacity building of the internees in line with the Govt efforts. The GCWUF entertain the internees under this program.

a. The ORIC will act as Focal Point for dealing with internees placed by DO (HRM) Faisalabad and without clearance by ORIC no letter will be issued by any faculty member to the internee for payment of stipend/ attendance report etc.

b. If an internee placed at GCWUF is already receiving any scholarship/financier assistance by any source, it will be stopped during the internship period. The internee will refund if scholarship/financial assistant received, after joining as internee at GCWUF.

- c. The ORIC will identify the department/institute before placement of the internees (as per professional degree/diploma of the internee) and it will be ensured that the internee may not be placed in the parent department (if the internee is GCWUF Alumni).
- d. The internees will only be entertained at GCWUF having placement/offer letters issued by -DO (HRM) Faisalabad.
- e. The Director of the institute/Chairperson of the department will not issue attendance /absent/progress report of the internee directly to DO (HRM). It will be routed through ORIC.

1.17 Consultancy Projects

The faculty members may provide the consultancy to the civil society for the solution of the problems under the frame work of the university.

- The faculty member(s) as service provider or stakeholder as service seeker will directly contact with BIC/ORIC before initiating the activity.
- The faculty member will produce mutually agreed points after discussion on the judicial paper of not less than Rs. 20/- and mention all the terms & conditions in the agreement.
- The agreement will comprise along with other conditions GCWUF consultancy charges @20% and BIC facilitation charges @20% of the total consultancy fee charged from the stakeholder (service seeker) while remaining 60% will be the sole share of the service provider /faculty member.
- The consultancy agreement will be got signed by the Director ORIC after the approval of the competent authority (the Vice Chancellor)
- In case of any dispute, the decision of the Vice Chancellor will be final and authenticated.

