

ORIC NEWS

ISSUE: FALL 2021, VOLUME: 2



Message from the Director



Welcome to the second edition of the ORIC newsletter. We are happy to bring you an update of the activities of Office of Research Innovation and Commercialization through this newsletter.

ORIC is mandated to facilitate high-quality Research, Innovation activities and their Commercialization in the University.

Over the past year, ORIC has facilitated the Faculty and Researchers to channelize research-led initiatives, and, innovation, commercialization, collaboration, capacity building and facilitates researchers in the processing of the grants. Also providing FCC's Internal Research Gants as seed funding for faculty. We have also developed linkages with the, Governmental organization and Industry and are consolidating it by means of formal MOU's. While the COVID-19 pandemic has had a disruptive effect on many fields, we have continued to provide our services remotely. ORIC will serve FCCU as a bridge between university research and research user of industry and society. I thank the Rector, Faculty and Staff for supporting the ORIC activities.

Dr. Kauser Abdullah Malik, H.I, S.I, T.I
Director ORIC



ORIC ACTIVITIES

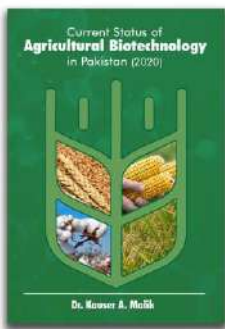
- Over 900 Research Articles in the Forman Research Repository.
- 18 NRPUs submitted
- IRB now part of ORIC
- 52 competitive Grant Opportunities Identified and shared with faculty.
- ORIC Facebook page
- ORIC – Business Incubation Center approved
- Over 50 active linkages



Haroon Samson
Senior Manager
Research Operations and Development – ORIC

ORIC strives to promote and facilitate research within the University by supporting university's strategic research directions. Being the focal office for University wide research operations facilitation, from identification to reporting. ORIC promotes research, facilitates linkages between Academia, Government funding agencies and Industry. ORIC arranges capacity building initiatives for Faculty, arranges events, promotes entrepreneurship, technology-transfer, and commercialization activities that energizes and support the national economy. I thank the University leadership for their support and our star Faculty Researchers for their wonderful research work.

NEWS & UPDATES



Director ORIC Dr. Kauser A. Malik launches a booklet on “**Current status of Agricultural Biotechnology in Pakistan**”, in collaboration with Pakistan Biotechnology Information Center (PABIC)



Dr. Aftab Bashir, Professor, KAM School of Life Sciences developed and handed over the completed Agricultural product titled “**Development of Gene Construct for Heat Tolerance for Monocot and Dicot Plant Species and Development of Maize Transgenic**” to the industry partner Four Brother’s Group.



Research Equipment Grant from **Alexander van Humboldt (AvH) Foundation of 19,495.99 Euro** awarded to **Prof. Dr. Samina Mehnaz, Chairperson School of Life Sciences.**



Dr. Fareeha Hameed, Associate Professor, Department of Physics was awarded a Research Project from **Elettra Sincrotrone Trieste, Italy** titled “**Evaluation and Beamtime Allocation**”.



Dr. Muhammad Younis, from Political Science Department is the team lead for “**Disputed Territories and Memory (DisTerrMem)**” a four-year project funded by **Horizon 2020, the European Union’s biggest research and innovation programme** involves researchers from 6 organizations and 4 countries working collaboratively.

NEWS & UPDATES



Dr. Bushra Usman, Associate Professor of Entrepreneurship, School of Management, awarded Honorary Head of Research and Development Department of Women Chamber of Commerce and Industry, WCCI.



Dr. Hamid Latif, Associate Professor, Department of Physics was awarded a Research project titled “**Energy Storing, Lighter And Stronger Textiles based on $\text{Li}_{1.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}\text{O}_2/\text{C} / \text{Ag}$ Coated Yarn (cathode) and rGO/Unzipped MWCNTs Yarn (anode)**” in partnership with a Turkish company TUBITAK and Pakistan Science Foundation(PSF), Research Support Program of a total of **Rs.18 million**.



Two Research Projects were awarded to **Dr. Nukhbah Taj Langah, Associate Professor, Department of English** one from Siobhan Lambert-Hurley - University of Sheffield on “**Advancing Female Literacy and Empowerment in Pakistan and India through Life Writing**” and from Global Challenges Research Fund quality-related (QR) funding - Teeside University, UK on “ **Women Writing Pakistan: gender in the South Asian Literary Landscape**”.



A Research Project on “**Gender Inclusive Strategies to overcome Systemic and personal challenges to women’s participation in STEM Leadership**” was awarded to **Dr. Sara Rizvi Jafree, Associate Professor, and Chairperson Department of Sociology** by The Gender in STEM Research Initiative - Advancing gender analysis and women’s leadership in STEM fields – IDRC.



Research project was awarded to **Hafiz Muhammad Mazhar Asjad, Associate Professor, and Department of Pharmacy** from Joint Excellence in Science and Humanities - Austrian Academy of Sciences titled **Exocyst-dependent trafficking of the dopamine transporter**



Dr. Khalid Javed Chairperson, Department of Physics, completed a Joint Research Project of Pakistan Science Foundation (PSF) and National Natural Science Foundation of China as Co-PI

HEC Ph.D. Indigenous Scholarships: FCCU received a total of 05 Ph.D. Indigenous Scholarships a total of **Rs. 3,652,500**.

Ph.D. Scholar	Subject
Ramsha Saeed	Chemistry
Anam Shabbir	Chemistry
Sidra Rana	Biotechnology
Mahnoor Zameer	Biotechnology
Sana Tariq	Physics

Institutional Review Board-IRB under ORIC: The IRB is now under ORIC complying with the requirements of HEC. IRB is an active body guided by the Ethical principles set forth in the Belmont Report, and College policies. IRB strives to create a culture of respect for and awareness of the rights and welfare of the research participants.

ORIC Steering Committee was established which comprises of prominent corporate leaders and Eminent University Faculty.

ORIC Research Repository a dedicated database for Research work, now exceeds **900** research articles by FCC University Faculty.

ORIC Research Revenue: More than **Rs.2 million** Annual Research Revenue Generated by ORIC through Research Grants & Projects.

Internal Research and Innovation Fund – IRIF: FCCU has allocated **PKR. 5 million** as Research revolving Fund to support research related activities at FCC under the auspices of Office of Research Innovation and Commercialization (ORIC). This year 05 projects have been funded.

10 Policy Advocacy Studies presented to the Government by the CPPG.

Corporate/Industry Database ORIC created an Industry database with more than **200** industry contacts to facilitate in Research Funding from Industry.

RESEARCH PROJECTS COMPLETED THIS YEAR

Researcher & Department	Title of the Projects	Funding Agency
Dr. Aftab Bashir , Associate Professor, School of Life Sciences	Transgenic approaches for the development of drought and salt tolerance in wheat".	Pakistan Agriculture Research Board (PARB)
Dr. Aftab Bashir , Associate Professor, School of Life Sciences	Utilization of multiple transcription factor genes for enhancing wheat yield	Pakistan Agriculture Research Board (PARB) -ALP
Dr. Saeed Shafqat , Director CPPG	Research on Governance and Policy Reforms in Punjab Spatial Strategy	The Urban Unit
Dr. Muhammad Arslan S.I. Distinguished Professor, School of Life Sciences	Association of bone metabolic characteristics and endocrine and inflammatory markers with severe obesity in children and adolescents	Pakistan Academy of Sciences (PAS) Research Grant
Dr. Sadia Zaheer , Assistant Professor, Department of Physics	Quasilinear theory of Electrostatic and Electromagnetic instability with non-Maxwellian distribution functions	Pakistan Science Foundation (PSF)
Dr. Muhaamd Akhyar Farukh	Fabrication of high efficiency N-doped graphene metal composites NRPO as Co-PI.	Hydromech Corporation

RESEARCH ACTIVITIES AT A GLANCE

52

Competitive Research Grant Opportunities identified and shared with the Faculty

25

Projects submitted to HEC and Non-HEC organizations for Research grants.

09

Research Projects submitted with a total worth of **Rs.180.7** million to National and International Funding agencies for funding.

06

Research Projects worth **Rs.14.4** million were completed this year.

05

Research Projects worth **Rs.20.5** million Approved.

07

Projects for which a total of **Rs.158.4** million was secured.

05

NRPU Projects completed this year, and

18 NRPU Projects submitted to HEC.

60

Research projects were reviewed by **Internal Review Board (IRB)**

07

Research Projects with a volume of **Rs.157.1** million funding secured from National and International organizations in the last 2 years.

32

Research Links established with other HEIs, Corporate organizations or Industry.

12

Agreements signed for collaboration with Industry

21

Civic engagement events/initiatives arranged on issues of Public concern.

FCCU RESEARCH FACILITIES

Top class facilities that support our world-leading Research

FCCU has world class research facilities. Our Research facilities are equipped with sophisticated equipment and well-trained staff. We continually upgrade our facilities and resources so that we may have high-quality equipment and resources in every subject area of the University. FCCU also collaborates with other research institutions and universities to ensure that our researchers have access to the very best and unique facilities.

Research facilities of KAM School of Life Sciences

- Genetics Lab
- Cell Culture Lab
- Microbiology Lab -1
- Microbiology Lab -2
- Tissue culture Lab
- Molecular Biology Lab-1
- Molecular Biology Lab -2
- Microbial metabolite Lab
- Mycology Lab
- Food Microbiology
- Climate Control Lab
- Bioinformatics Lab
- Climate Control Room
- Soil Preparation Room
- Microscopy Room
- Molecular Diagnostic Lab

To see the pictorial details of the SLS Labs and equipment

click the following link: [https://www.fccollege.edu.pk/wp-content/uploads/](https://www.fccollege.edu.pk/wp-content/uploads/School-of-Life-Sciences-Department-Lab-Equipment.pdf)

[School-of-Life-Sciences-Department-Lab-Equipment.pdf](https://www.fccollege.edu.pk/wp-content/uploads/School-of-Life-Sciences-Department-Lab-Equipment.pdf)

Research facilities of Chemistry Department

- Advanced Instrumental Lab
- Inorganic Lab
- Organic Lab
- Physical Lab
- 04 Research Labs

To see the pictorial details of the Chemistry Labs click the following link:

<https://www.fccollege.edu.pk/wp-content/uploads/Chemistry-Department-Lab-Equipment-1.pdf>

Research facilities of Physics Department

- Modern Physics Lab
- Mechanics Lab
- Characterization Lab
- Optics Lab
- Computational Lab
- Nano Technology Lab I
- Nano Technology Lab II
- Electricity & Magnetism Lab
- Electronics Lab

To see the pictorial details of the Physics Labs click the following link:

<https://www.fccollege.edu.pk/labs-and-resources-for-research/#1602573847736-4ce1231f-dcd1>

Research facilities of Pharmacy Department

- 02 General Labs
- 01 Research Labs
- Animal House

To see the pictorial details of the Pharmacy Department Labs click the following link:

[https://www.fccollege.edu.pk/labs-and-resources-for-research/](https://www.fccollege.edu.pk/labs-and-resources-for-research/#1602053511420-d210f6b9-1465)

[#1602053511420-d210f6b9-1465](https://www.fccollege.edu.pk/labs-and-resources-for-research/#1602053511420-d210f6b9-1465)

Research facilities of Environmental Sciences Department

01 Environmental Science Research Lab

To see the pictorial details of the Environmental Sciences Department Labs click the following link:

[https://www.fccollege.edu.pk/wp-content/uploads/](https://www.fccollege.edu.pk/wp-content/uploads/Environmental-Sciences-Department-Lab-Equipment.pdf)

[Environmental-Sciences-Department-Lab-Equipment.pdf](https://www.fccollege.edu.pk/wp-content/uploads/Environmental-Sciences-Department-Lab-Equipment.pdf)

NATURAL SCIENCES MUSUEM



GREEN HOUSE



PHARMACY ANIMAL HOUSE



ENVIRONMENTAL SCIENCES LAB



CPPG SEMINARS



Research facilities of Computer Sciences Department: 05 well equipped Computer Science Labs

Research facilities of Ewing Memorial Library: Well equipped with Research databases and Digital Resources.

Library Resources: 3500 books, **Research Databases:** JSTOR, Project Muse, ProQuest, Springer Link, Taylor and Francis, Ebscohost Academic Ebooks, Wiley, and many more

<http://librarv.fccollege.edu.pk/>

Research Resources of Center for Public Policy and Governance-CPPG

Dialogue Reports	3	Access to all Library Resources
Discussion Papers	3	
Monographs	10	
Policy Briefs	6	
Position papers	9	
Reports	2	
Working papers	3	

DR. SAEED SHAFQAT RESEARCH AND REOURCE CENTER FOR PUBLIC POLICY AND GOVERNANCE



For details of Center of Public Policy and Governance

Click the following link: <http://cppg.fccollege.edu.pk/>

ORIC - Business Incubation Center approved in the upcoming Student Center Building.



The Business Incubation Centre (BIC) will provide basic infrastructure and allied facilities for student entrepreneurs who are interested in developing early-stage business ventures.

Incubates will be provided well-furnished cubicles with modern equipment, discussion rooms and accelerator rooms to facilitate their business operations. Here they can network with industry, business leaders and investors. They would also be provided with capacity building support.

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ORIC WEBPAGE:

<https://www.fccollege.edu.pk/office-of-research-innovation-and-commercialization-oric/>

ORIC ONLINE RESEARCH REPOSITORY: <http://58.27.197.146:8080/jspui/>



ORIC Facebook page: <https://www.facebook.com/fccu.oric>