

Office of Research, Innovation and Commercialization (ORIC)

Overview

The University, true to the innovative spirit of its founders, is alive to the cause of research and development. The breadth, depth and assortment of research activities in the university have contributed to the national socio - economic stream through technological pursuits.

ORIC is established to channelize research and innovation led initiatives. It offers services connected to research and development, innovation, commercialization, collaboration, capacity building and facilitates researchers in the processing of project/research grants.

Vision

The vision of ORIC is to promote research and innovation in the local context.

Mission

To take Pakistan forward by continuously improving quality of research, building partnerships with the industry, and being able to capitalize on outcomes that result from research and development activities.

Functions

- Encourage pragmatic research in the context of Pakistan's socio-economic needs
- Identify and inform the faculty members about research opportunities
- Facilitate joint research ventures and academic collaborations
- Promote publication of research work being conducted in the University
- Assist faculty in acquiring funds from international and national funding agencies
- Promote entrepreneurship, technology - transfer and commercialization activities that support both local and national economies
- Commercialize research in collaboration with industry
- Arrange awareness seminars, symposia and workshops for the benefit of faculty and students

Services

- Educate faculty about university research policy and process grant requests
- Develop, maintain, and communicate pre and post-award administrative procedures for externally sponsored projects
- Support faculty regarding contracts, progress reports, and other sponsor grants actions
- Connect faculty and students with prospective industrial partners
- Assist students, faculty and alumnus in pursuit of technological or social innovations
- Mentor the promising start-ups during the initial period when they are most susceptible
- Assist in patent filing and licensing
- Keep web and social media presence to share the latest research, scholarship, and entrepreneurial opportunities

ORIC Team

| Name | Designation |
|------------------------------|--|
| Dr. Muhammad Asif Naeem | Director ORIC |
| Mr. Muhammad Aatif Saif Khan | Manager Research Management |
| Mr. Rana Ayaz | Manager Innovation and Commercialization |
| Ms. Sayeda Sadia Batool | Grants Management Officer |
| Ms. Maryam Mehtab | Research Officer |
| Ms. Aysha Shafiq | Assistant Manager (Career Services, Chiniot Faisalabad Campus) |
| Ms. Iram Arshad | Assistant Manager (Career Services, Islamabad Campus) |
| Ms. Aysha Siddiqui | Assistant Manager (Career Services, Karachi Campus) |
| Mr. Bashir Muhammad | Manager (Career Services, Lahore Campus) |
| Mr. Riaz Nawab | Officer (Career Services, Peshawar Campus) |

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Accomplishments

Noteworthy achievements of our department include:

- The ORIC recently received a commendable “Y” ranking in its inaugural participation in the HEC’s 2022-2023 ORIC Performance Ranking.
- To achieve the HEC’s accreditation and ranking, policies were framed to streamline processes for the smooth execution of the Extramural Funding, Research Rewards, Research Ethics, and Intramural Research Funding for the fresh and experienced researchers (Faculty Research Support Grant), International and Inland Travel Grants, In-kind Research Support, Technical Entrepreneurship for Faculty, FYPs, Plagiarism, etc. to improve pedestal of research and development. These policies collectively contributed to improving the research and development landscape, promoting transparency, accountability, and excellence in all aspects of research activities within the university.
- Identified avenues of research fund raising, mobilized faculty, partnered with the business community and industry for research commercialization.
- Incessantly educated faculty about emerging research avenues that resulted in over 200 research proposals submissions for external research funding in the period 2018 - 2023.
- Competitive research grants over Rs. 487 million were secured in the period 2018 - 2023.
- To incentivize and acknowledge outstanding research publications, faculty received research rewards exceeding Rs. 49 million from 2018 to 2023. This program has demonstrably led to an increase in the number of high-quality faculty impact factor publications during the reported period.
- Our campuses hosted a wide range of training workshops, conferences, seminars, and symposiums. Faculty and staff members actively participated in these events, along with conferences and seminars organized by other universities and industry partners. These engagements provided valuable professional development and networking opportunities, enriching the expertise of our team.
- The portfolio of ORIC extramural funding expands to have a lab affiliated with each of the four National Centers in Emerging Technologies funded by the Public Sector Development Program (PSDP): National Center of Artificial Intelligence, National Center of Big Data and Cloud Computing, National Center of Robotics and Automation, and National Center of Cyber Security. These projects have developed prototypes that are being pitched to the investors for product licensing and commercialization.
- The NUCES encourages international collaborative research. The faculty researchers are executing European Union’s ERASMUS projects.
- A host of research projects with defence and commercial verticals are also being executed.
- National Grassroots ICT Research Initiative (NGIRI) program under Ignite aims to assist final year undergraduate students of ICT related disciplines by providing them financial assistance for developing prototypes / working models of their Final Year Projects (FYP) to increase creativity, innovation, and hands on engineering and development skills. The University has been participating in this programme and won over 185 projects from 2014 - 2023.
- In 2022-23, under the ORIC umbrella, NUCES Successfully organized eight international conferences and workshops viz: ICET23, ICIT23, INMIC22, APIC22, ICETST22, IEEE WFAIR22, ACCE22, and ICIT22. We have announced the ICETST24 at Karachi campus with several other exciting events in the pipeline. These upcoming conferences promise to bring together experts and thought leaders from various fields to foster innovation, collaboration, and the exchange of ideas.
- We maintain an incessant social media presence, actively sharing a wide range of local and international opportunities, including emerging research, entrepreneurship, and placement prospects for our faculty and students. By leveraging our Facebook page at <http://www.facebook.com/FASTNUORIC/>, we effortlessly

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- disseminate information about these opportunities, ensuring that our audience is well-informed and connected to a wealth of exciting prospects at the click of a mouse.
- Facilitate to increase academia-industry collaborations through meetings, MOUs and consultancy agreements aimed to address industry challenges. To date, (2018-2023) our institution has secured over 59.3 million rupees in consultancy projects from various organizations.
 - In an effort to increase the research capabilities of faculty members, ORIC has initiated intramural funding through the Faculty Research Support Grant (FRSG) program. To date approximately Rs. 79.5 million has been funded across all five campuses of the university. Under the recent FRSG call (Fall 2023), the university has funded 19 projects each of worth Rs 1.5 million.
 - Till now our department has signed 170 Memorandums of Understanding (MoUs) with a diverse range of national and international universities, as well as industrial organizations. These MoUs were strategically crafted to foster collaborations between academia and industry, aiming to promote knowledge exchange, joint research initiatives, and mutually beneficial partnerships. Through these collaborative efforts, we have been able to bridge the gap between theoretical knowledge and practical application, facilitating innovation and creating avenues for impactful research outcomes.
 - This year ORIC has developed the NUCES University Research Portfolio to showcase the university research spectrum and achievements at both national and international level. It strengthens our capacity to engage with various funding bodies and facilitates collaborations, fostering opportunities to secure consultancy projects and further propel our research initiatives. The University Research Portfolio is uploaded on the ORIC website and can be accessed from URL <https://www.nu.edu.pk/Oric/UniversityResearchProfile>.
 - As part of our commitment to foster an entrepreneurial culture within the university, faculty members are actively encouraged to establish research labs. To date, we have successfully commercialized 42 research labs across various campuses of NUCES. Further details regarding the projects and achievements of these research labs can be accessed through our official ORIC website at <https://www.nu.edu.pk/Oric/OricResearchLabs>. This platform serves as a gateway for national and international organizations to connect with relevant research labs for collaborative research and development initiatives. Such collaborations ultimately prove beneficial for the university and its stakeholders.
 - A new Chip design centre has been established at Islamabad campus with the collaboration of GS Microelectronics US Inc. The centre, named GF-Metric, focuses primarily on Integrated Circuit (IC) design, research, training, and fostering innovation and commercialization, leveraging the partnership with GSME.
 - An Incubation Centre is operational at Peshawar campus for students. It is networked with entrepreneurial hub for mentoring the incubates. Additionally, a MOU has been signed with National Incubation Centre (NIC), Islamabad to help FAST-NUCES Students in the process of their Start-ups.
 - ORIC is supporting its faculty members and researchers in establishing their technical start-ups, including providing support throughout the trademark and patent filing processes. Notably, recently a new Start up (iParahi) has achieved success in trademark registration. Additionally, the founder is actively engaged in the process of filing a patent application for his forthcoming product.
 - ORIC consistently disseminates information regarding exchange programs and international internship opportunities for students. Both students and faculty members have been actively utilizing these opportunities to enhance their academic and professional pursuits.