



SUPERIOR UNIVERSITY

RESEARCH

Research Round-up 3rd Quarter 2022

ROUND-UP

POWER WOMEN AWARD

SOUTH ASIA'S
TOP 100

BRIDGING

ACADEMIA-BANKING GAP

MEEZAN BANK to collaborate with
Superior University - Page No. 5

DR. SYED AHMED SHAH WON

PASIFIC MARIE SKLODOWSKA-CURIE

Research Grants from
Polish Academy of Sciences - Page No. 7

THE SUPERIOR UNIVERSITY

HAS BEEN DECLARED EMERGING
EDUCATION INSTITUTION OF THE
YEAR AWARD

*The South Asian Partnership
Summit-Page No. 3*

PROF. DR.
SUMAIRA REHMAN



Office of Research, Innovation & Commercialization



SAPS

Know Your



Office of Research, Innovation & Commercialization

Vision

To be among the leading research universities in the country.

Mission

To promote a vibrant, innovative, and entrepreneurial environment for conducting quality research with an aim to grow knowledge economy and strengthen university-linkage to formulate collaborative venture with the corporate community.

Our Ethos

- ETHICS
- INCLUSIVITY
- INNOVATION
- COMMITMENT
- SUSTAINABILITY
- COMMERCIALIZATION

ORIC *Performance*

260+

TOTAL EXTERNAL
COLLABORATIONS

04

HEC RECOGNIZES
SUPERIOR RESEARCH JOURNALS

114

KOWNLEDGE
EXCHANGE ACTIVITIES

47.8

PKR MILLION WORTH
RESEARCH GRANT WON

Research Publications: 260+

By conducting significant research across several disciplines, Superior University iis trying to establish a vibrant research community in Pakistan. Academic performance is mostly determined by publications, and we are pleased that our faculty is making valuable knowledge contributions to the national and international research community. ORIC feels excited to share the statistics of publications that have so far been published this year.

Research Publications

Total



South Asia's Top 100 Power Women Award

The South Asian Partnership Summit

Superior University's Rector, Prof. Dr. Sumaira Rehman has been honored with South Asia's Top 100 Power Women Award at the 6th South Asian Business Excellence Awards 2022 hosted in Dhaka, Bangladesh by the South Asian Partnership Summit.

This outstanding accomplishment confirms Prof. Dr. Sumaira's position as a distinguished academician and agent of change. It recognizes her efforts for adoption of entrepreneurial education system at university level and further appreciates her endeavors to increase access to higher education throughout Pakistan. Her innovative approach of employing experiential learning frameworks to produce market ready graduates has led to the development of progressive and sustainable communities. Under her leadership, students of Superior University learn the value of taking initiatives as they are provided with an enabling entrepreneurial ecosystem that ensures their financial independence.



Prof. Dr. Sumaira Rehman
Rector - Superior University, Lahore

The Superior University has been Declared Emerging Education Institution of the Year Award

The South Asian Partnership Summit

6th South Asian Business Excellence Awards by The South Asian Partnership Summit held in Dhaka, Bangladesh, presented Superior University with the Emerging Education Institution of the Year Award. This award is a significant reminder that Superior University is ensuring quality education for students' success.

The annual South Asian Business Excellence Awards acknowledge and reward the exceptional work of trailblazing individuals and organizations who achieve excellence in innovation, enterprise, and endeavor amidst an ever-increasing competitive market in the South Asian Region.



External Collaborations

We are not growing alone but collaborating with national and international organizations for achieving shared goals of sustainable development. To date, we have more than 250 plus MoUs with leading public universities, research organizations, corporate sectors, and industries for research, student exchange, joint research events, and other exciting collaborative efforts.

The Superior University inks a Memorandum of Understanding with Foundation University Islamabad.

Rector, Superior University, **Prof. Dr. Sumaira Rehman**, and Rector, Foundation University Islamabad, **Maj. Gen. (Retd.) Nasir Dilawar Shah** signed the document in a ceremony organized at the Superior University, Main Campus.

The universities decided to devise implementation plans for jointly undertaking professional development programs, research projects, resource mobilization, and other academic and research activities at the undergraduate and graduate levels. Both institutions also committed to enhancing academic, scientific, and cultural collaboration across the faculties in areas of shared interest while gaining from each other's initiatives, expertise, and working methods along with providing assistance to researchers affiliated with both institutions. The MoU reflects mutual resolve of both the institutions towards continuous encouragement of entrepreneurship and applied research for socio-economic development of the country.



International Advanced Training on IP Management at COMSTECH, Islamabad

The Superior University and COMSTECH inked an MoU a year ago for advancing human resource development initiatives, since then various initiatives have been undertaken in the spirit of collaboration. COMSTECH invited ORIC representatives to an international advanced training on IP Management at COMSTECH, Islamabad. Dr. Shafique Ahmed, Manager Innovation & Commercialization ORIC and Dr. Adnan Yousaf, Head of Department Electrical Engineering Department and Project Manager, Multi-disciplinary Research Working Group (MDRCW) ORIC represented Superior University at this training. Delegates from the Superior University shared their experiences of IP management and organizers of the training acknowledged the positive contribution of Superior University towards building a healthy IP ecosystem. This participation was part of the collaborative framework for research with leading national/international organizations under the Eyes High Research Strategy envisioned by the worthy Rector Prof. Dr. Sumaira Rehman.



Advancing Research Commercialization with University of Agriculture Faisalabad

ORIC officials of both the universities had detailed discussions with scientists from UAF over the shortlisted projects. These projects were shortlisted by ORIC Superior for commercialization based on their commercialization potential covering aspects like market need, time to market, market readiness, and cost of commercialization. The delegation visited UAF'S National Incubation Centre and also held a meeting with the VC UAF Prof. Dr. Iqrar Ahmed Rana. The VC Invited the Superior University to become part of the upcoming Korea-Pak Joint Project on Nutrition Sciences.



Academia - Banking Meezan Bank

ORIC representatives and (Vice-President ...Meezan Bank) had a meeting to explore avenues of collaboration between the two entities. The meeting was a follow-up of collaboration of Meezan Bank with Superior University for SEE Pakistan i.e. a national level entrepreneurial expo and a knowledge exchange event held on August 18, 2022 at

Lahore Expo. After deliberations in the meeting, both entities decided to devise plans for corporate training, revision of Islamic banking curriculum, development of knowledge products and assistance in collection of primary data for research of students. (Name of official with designation) shared that the Meezan Bank intended to support women entrepreneurship and was actively working to increase access of Islamic banking to the non-banking population. Both entities agreed to share expertise and resources in developing joint research groups on Islamic banking. Superior University invited Meezan Bank to become a Knowledge Partner for conferences of 2nd Research Week of the Superior University to be held from December 1st 2022.

Sharing Entrepreneurial Expertise with Fatima Jinnah Women University Rawalpindi

ORIC team hosted a delegation of Fatima Jinnah Women University Rawalpindi on 26th August 2022. The delegation discussed the areas of mutual interest and assured cooperation in the field of collaborative funding of research, women entrepreneurship, and consultancies. The following participants attended the meeting:

1. Prof. Dr. Shoaib Akhtar, Director ORIC, Fatima Jinnah Women University
2. Prof. Dr. Ahmad Raza Bilal, Director ORIC, The Superior University
3. Dr. Amad ud Din, Manager Industrial Linkages, Fatima Jinnah Women University
4. Dr. Shafiq Ahmed, Manager Innovation & Commercialization, The Superior University
5. Mr. Hamid Masood, Deputy Director ORIC, The Superior University
6. Mr. Asif Zaman, Business Development Manager, Fatima Jinnah Women University



Research Journal

The superior university believes in offering value propositions to the community of researchers through various knowledge exchange and dissemination activities. Quality journals play an important role in promoting research culture and knowledge exchange among academics. To contribute to quality research, Superior University publishes 11 Journals out of which 4 journals have been recognized by HEC Journal Recognition System (HJRS) whereby one of these four journals maintained its previous position. We are pleased to share that the following journals of Superior University have been recognized by HEC for the year 2022-23:

04 HEC
Recognizes
Superior's
Journals

- International Journal of Management Research and Emerging Sciences
- Journal of Biological and Allied Health Sciences
- International Journal of Pharmacy and Integrated Health Sciences
- Journal of Media and Entrepreneurial Studies

Knowledge Exchange Activities

The office of Research Innovation & Commercialization under its "Knowledge Exchange Activities", organized a series of workshops, trainings, seminars, and colloquia by renowned professional experts in all disciplines. ORIC ensures every faculty member and student has the right knowledge to strengthen their skills to achieve their own and the university's goals. The knowledge exchange activities aim to promote university-wide research culture and set a benchmark for quality across the university.

114

Total Knowledge Exchange Activities
January - September 2022

Governance

2nd Superior Journal Committee Meeting



ORIC hosted the 2nd Superior Journal Committee Meeting on 31st August 2022. The Superior Journal Committee discussed Superior Journals in detail and made valuable suggestions to refine those journals. The Committee deliberated on the following subjects:

- Update on the issuance of call for papers & submission frequency
 - Timely publishing status
 - OJS processing and operating issues
 - Ethical consideration for maintaining ethical publishing standards
- Discussion on the publication mechanism and ORIC policy guidelines for HEC-indexed and non-indexed journals. The meeting was attended by all the editorial members of the journal committee.

Research Excellence

Dr. Syed Ahmed Shah,
Assistant Professor,
Faculty of Pharmacy



Dr. Syed Ahmed Shah, Assistant Professor, Faculty of Pharmacy, Superior University Lahore was awarded with a research grant worth 38.7 million from the highly prestigious Pasific Marie Skłodowska-Curie Research Grants from Polish Academy of Sciences. Dr. Ahmed's scientific research began in the area of development, characterization, and in vivo evaluation of stimuli-responsive hydrogels in biomedical applications with a current primary focus on thermoresponsive injectable hydrogels as an efficient and potential platform for synergistic wound healing and tissue remodeling. Research area centers on enzymatically crosslinked hydrogel and pH-responsive hydrogel for controlled colonic delivery of gastro-irritant drugs, pharmaceuticals, and bio-based polymeric hydrogel systems for tissue engineering application. Dr. Ahmad Shah has strong research credentials having 15 peer-reviewed publications with a cumulative Impact Factor 101.586.

PASIFIC



Won
Research Grant

EUR 171,145.27

For His Research Project on
BioPolymer Based Enzyme-mediated fast in situ Injectable
Hydrogels Laden with Curcumin Nanocrystals for the Bone Tissue
Engineering

Faculty Achievements



Health Security Partners (HSP) selects Dr. Samyyia Abrar for BioRisk Management (BRM) course by the International Federation of Biosafety Associations

Dr. Samyyia Abrar Assistant Professor, Department of Biological Sciences) has been selected to participate in the course and receive the International Federation of Biosafety Associations; BioRisk Management (BRM) Exam Scholarship. This course is funded by Health Security Partners in collaboration with Pakistan Biological Safety Association (PBSA).

The IFBA's certification program is the only internationally recognized program to certify the competency of individuals in biorisk management and a variety of related technical disciplines. HSP's BRM and Biosecurity IFBA Exam preparatory course consist of weekly webinars, reading assignments and practice tests. This Course is led by local and international biosecurity and BRM experts, including HSP's own Technical Advisor Samreen Sarwar, Pakistan's only recipient of all five IFBA Certifications.

Superior Faculty Member Gets Selected as member of the Curriculum Task Force for for American Undergraduates studying Microbiology

ORIC congratulates Dr. Rabia Nawaz on getting selected as one of the 14 members *Curriculum Task Force* for American Society of Microbiology. The selected team will put forth their expertise in devising a Microbiology curriculum for American Undergraduates studying in varied fields including but not limited to BS Microbiology and BS Allied Health Sciences. She is already serving as a Mentor in Future Leaders mentorship program with the same society.



Blog

Research Commercialization and Technology Transfer – Five ways that can help you to protect and commercialize your creative work in sciences and social sciences

Muhammad Haseeb Shakil^{1#} & Dr Shafique Ahmed^{1*}

1. ORIC, The Superior University Lahore
Research Executive

* Manager Innovation and Commercialization

Any creation of mind such as invention, design, symbol, process etc. is referred as Intellectual Property (IP). Just like tangible assets, intellectual property also contributes to the success of a business. Patenting is a primary tool to protect an IP, but there are number of intellectual properties such as copyright, trade secrets, know how, designs, trademarks, and database rights which should be managed properly. First, consultancy is application of existing knowledge generated by research which helps to solve existing challenge. If you are expert on something technical for example designing communication strategy for a growing organization or shortening of an industrial process for some product development, then you can approach the right parties as consultant. Second, licensing allows the owner to sell the rights of his creation/innovation to a licensee. Third, spin-out are formed specifically to commercialize the outputs of a research with the help of technology transfer office (TTO). Fourth, negotiation is term defined as planning, reviewing, analysis that a buyer and seller conduct to reach an agreement. You may want to create a proposition where everyone benefits, i.e., win-win situation. Otherwise, it will not be sustainable. And finally, you must mind stakeholder engagement as fifth pillar of your commercialization effort. Your stakeholders may be senior management of the organization you work in or your academic leaders, or your co-workers on the project. Clearing any conflict of interest at this stage is vital. Try to nip it in bud.

Types of Patent Application

a) "An ordinary patent application is defined as an application with complete specification, which contains the date of the official filing of the patent

application".

b) "A convention patent application is defined as declaring "right of priority", which is dated as of the official date of the corresponding application for patent first made in a country which is the member of World Trade Organization (WTO). Application for a patent of addition, for improvement or modification of an invention for which a patent has already been applied for or granted".

| Country | Number of Patents |
|----------|-------------------|
| Pakistan | 338 |
| India | 23,141 |
| China | 1,344,817 |

Let's discuss five ways to commercialize research or protect your creation:

1. Consultancy

Consultancy is the term defined as "application of existing knowledge, skills and abilities generated by research". It helps to solve existing challenges of a firm. It helps to solve a particular problem but it doesn't create new knowledge. As consultancy is the commercial project so the concerned person (client) can own the results of project. Consultancy opportunities can come from developing marketing material, having representatives who can convey your message to other stakeholders, providing trainings along with material, having an effective website, highlighting success stories, and networking.

Level of Stakeholder Engagement

a) **Inform:** Inform stakeholders on the initiative, the issue, and the potential solutions by providing them with fair and impartial information.

b) **Consult:** Seek opinion on the information provided. The amount of input might range ranging from minor to a great. Opportunities to provide feedback that will be taken into account during the decision-making process can be one-time or recurring.

c) Involve: During the process, worked very closely with stakeholders to ensure sure that their issues and expected outputs are thoroughly addressed and taken into consideration at each level. The consulting firm continues to make the final decisions, but with thoughtful input from the many stakeholders.

d) Collaborate: At each phase of the decision-making process, including coming up with ideas for other solutions and deciding on the chosen solution together, collaborate with the stakeholders. The objective is to reach agreement on decisions.

e) Empower: Keep stakeholders in authority of making the final decisions. Votes and voting ballots are notable examples. This level of stakeholder engagement is exceptional and typically involves a small group of individuals who work for significant stakeholder groups.

2. Licensing

Licensing an intellectual property allows the owner to sell the rights to use intellectual property to a licensee (holder of a license). IP licensing is a form of contract. By holding license, the licensee has been permitted to allow what they want to do with that property. A license agreement is beneficial if both of parties have awareness to identify appropriate permissions. A license agreement should be a written document signed by all involved parties. Sometimes one party define the terms of agreement but most of the time both of the parties negotiate. In the process of written agreement, IP attorneys helps to draft the agreement which includes permission, duration, and term of use etc. Five important considerations in licensing that you should know are as follows:

- a) **Rights:** The rights being transferred to licensee for reproduce a work
- b) **Financial Consideration:** Financial exchange, type of currency to be used etc.
- c) **Territory:** Where the licensee may use the license
- d) **Term:** Duration of license
- e) **Exclusivity:** The concerned who have rights under the license
- f) **Governing Laws:** The jurisdiction that will handle a dispute
- g) **Dispute Resolution:** Whether the parties will resolve the dispute on in court

3. Spin-outs

Spin-out companies are formed specifically to commercialize the outputs of a research or technology. Usually, one or more of the researchers is directly involved as a founder or stakeholder. In some cases, due to institutional policies the

researchers are not allowed to form part of the spin-out venture so they may just be beneficiaries of the license agreement the university makes with the spin-out venture. The success of a spin-out will be enhanced where a wide range of local support mechanisms are available, such as:

- a) proof of concept funding
- b) management expertise
- c) accelerator programs
- d) start-up friendly spaces and access to suitable facilities
- e) access to customers (whether consumers or large businesses)
- f) specialist support service providers
- g) venture finance, including dedicated investment funds.

TTO is the department which helps in the process of technology transfer among researcher and TTO can provide following supports to a spinout:

- a) developing the proposition
- b) managing the licensing of intellectual property to the spin-out
- c) helping build the team
- d) providing early-stage seed funding
- e) assisting with ongoing business management

4. Negotiation:

The term negotiation refers to a strategic discussion that resolves an issue in a way that both parties find acceptable.

Commercial Negotiation is term defined as planning, reviewing, analysis that a buyer and seller conduct to reach an agreement. Each party in a negotiation seeks to convince the other to accept their point of view. Given that there is some give and take during negotiations, one party will always gain. But even a small concession must be made by the other. All parties concerned attempt to prevent conflict through negotiation while agreeing on a compromise. Buyers and sellers, an employer and a potential employee, a government of two or more countries or other parties can all be negotiating parties.

Principled Negotiation

- a) **People** – Separate people from problems
- b) **Interests** – Focus on interests not on positions
- c) **Options** – Create and discuss lot of possibilities before deciding what to do
- d) **Criteria** – Insist on a result based on some objective standard

5. Stakeholder Engagement

Stakeholder Engagement is the process by which an individual/organization can involve peoples who may be affected by decisions. Engagement activities involves one on one meetings, workshops/seminars, structured programs, social

events, social media campaigns, public relations (PR), and advertisement.

Key Principles of Engagement

- a) Communicate: Sharing the information with Stakeholder
- b) Plan: Careful planning regarding investment before sharing information with stakeholders
- c) Relationships: Relationships are key to enhance trust and helps to work together more easily and efficiently
- d) Take Responsibility: Stakeholder engagement is not a job of one member, it is the responsibility of all individuals involved.

Conclusion:

Commercialization has been vital for protection of an intellectual property for a few decades now, but the awareness of all legal levels of commercialization such as consultancy, licensing and spin outs and exposure to protect an IP may be beneficial for earn from creation/innovation.

The creations/innovations are growing exponentially, and as the fear of idea duplication increase so its protection in form of IP decreases that fear. When the creation/innovation is rewarded for its viability and uniqueness, it reinforces the society/firms to accept and adopt it.

For more information

Intellectual Property Organization (IPO) of Pakistan is the organization where patents can be filed.

URL: https://www.ipo.gov.pk/patent_intro

For more support and specific help please reach us at shafique.ahmed@superior.edu.pk

Upcoming Events

Research Week

The Office of Research, Innovation & Commercialization is hosting a university-wide event which celebrates the excellence of research performed across all educational institutes in Pakistan. It's a unique opportunity to bring together researchers including students and faculty, Industrial officials, public sector officials, policy makers and other stakeholders. This platform not only aims to showcase the undertaken research but also targets the integration of research into policy formulation and implementation.

You can attend the following events happening throughout the week.

- Entrepreneurial & Sustainability Prospects in the Post-Pandemic World
- Pharmaceutical Drug Research and Industry Field Innovations
- Placenta Accreta Spectrum: A Continuously Evolving Challenge
- Digital Entrepreneurship and Gender: A New Horizon for Emancipation
- 1st International Research Conference on Financial, Economics & Humanities (ICFH 2022)
- 1st International Rehabilitation and Allied Health Conference (RASCON)
- 1st International Design & Innovation Conference (IDIC-2022)

Venue: The Superior University : 17-KM, Main Raiwind Road, Lahore

For Details Contact: oric@superior.edu.pk





SUPERIOR UNIVERSITY



Office of Research, Innovation & Commercialization

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