

# Round-up 2nd Quarter Newsletter 2024

Won Funding Project Worth

3.5 million
from the Pakistan Science Foundation
(Pg no. 09)

Global Sustainable Development

Dr. Arfan Jaffar

Dean
Faculty of Computer Sciences and
Information Technology

Superior University's Partnership with PITB under the Public-Private Partnership Initiative

Congress, Bangkok, Thailand.

(Pg no. 05)

(Pg no. 03)



### Research Roundup 2024

ORIC Newsletter Quarter 2 April - June 2024

# Know our **ORIC**

### **Vision**

To be ranked among leading universities, driving research excellence, and market utility in Pakistan.

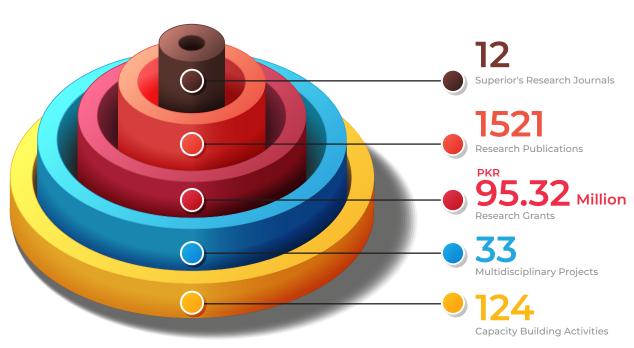
### **Mission**

Promote an innovative, vibrant, and entrepreneurial environment to achieve research excellence with the aim of creating social impact, growing the knowledge economy, and formulating collaborative ventures.

### **Our Ethos**

- Innovation
- Sustainability
- Commercialization
- Ethics
- Inclusivity
- Commitment

### **ORIC Performance:**



### **Research Themes**

#### Aligned with the relevant Sustainable Development Goals (SDGs)



SDG 3: Good Health and Well-being

SDG 6: Clean Water and Sanitation

SDG 2: Zero Hunger SDG 1: No Poverty



SDG 9: Industry, Innovation, and Infrastructure

SDG 11: Sustainable Cities and

Communities

SDG 12: Responsible Consumption

and Production



SDG 17: Partnerships for the Goals SDG 8: Decent Work and Economic

Growth

SDG 9: Industry, Innovation, and

Infrastructure



SDG 2: Zero Hunger

SDG 12: Responsible Consumption

and Production

SDG 13: Climate Action

SDG 15: Life on Land



SDG 16: Peace, Justice, and Strong Institutions

SDG 10: Reduced Inequalities

SDG 11: Sustainable Cities and

Communities



SDG 5: Gender Equality

SDG 10: Reduced Inequalities

SDG 16: Peace, Justice, and Strong

Institutions



SDG 4: Quality Education SDG 11: Sustainable Cities and

Communities

SDG 16: Peace, Justice, and

Strong Institutions



SDG 13: Climate Action SDG 14: Life Below Water SDG 15: Life on Land

# Research Publications: Showcasing Excellence

Superior University is proud to present its vibrant research community, which has contributed over **1,515 research publications** across a diverse range of disciplines. With over **160 authors** involved, our institution is making significant strides towards becoming a leading research university in Pakistan.

### Superior Major Research Areas - 2024

Our research endeavors span various disciplines, reflecting our dedication to advancing knowledge across various fields. Some of the major research areas include:

- Engineering
- Computer Science
- Business, Management and Accounting
- Materials Science
- Mathematics
- Medicine
- Physics and Astronomy
- Social Sciences
- Environmental Science
- Agricultural and Biological Sciences
- Chemistry
- Chemical Engineering

- Decision Sciences
- Multidisciplinary
- Nursing
- Biochemistry, Genetics and Molecular Biology
- Economics, Econometrics and Finance
- Energy
- Pharmacology, Toxicology and Pharmaceutics
- Psychology
- Health Professions
- Dentistry
- Earth and Planetary Sciences
- Veterinary

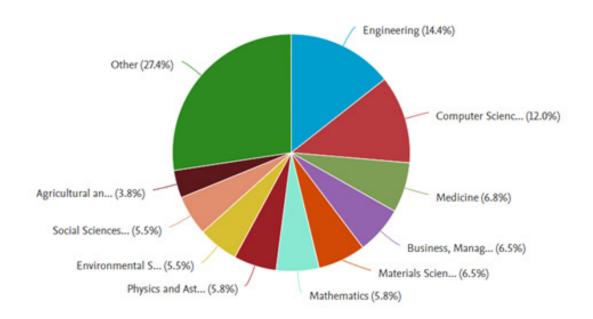


Figure 2: Scopus Research publications reflecting various disciplines.

### Our Strategic Collaborations

### Superior University's landmark Partnership with PITB under Public-Private Partnership Initiative





Superior University hosted a significant event on June 10, 2024, marking the signing of a groundbreaking Memorandum of Understanding (MOU) with the Punjab Information Technology Board (PITB). This collaboration falls under the new Stream Public-Private Partnership (PPP) initiative, making Superior University the first institution to join.

The MOU was signed by Prof. Dr. Sumaira Rehman, Rector of Superior University, and Mr. Sajid Latif, Deputy General E-Governance of PITB.

During the meeting, Prof. Dr. Sumaira Rehman introduced Superior University's entrepreneurship program and incubator centers aimed at empowering youth. The ceremony concluded with productive discussions on shared services and a warm introduction of PITB's officials to Superior's faculty. These joint efforts aim to enhance collaboration, leading to innovative projects and mutual development.

### Superior University inks MoU with Evercare Hospital Lahore



Superior University's Faculty of Allied Health Sciences has partnered with Evercare Hospital, Lahore. They signed the MoU to work together on healthcare projects, improve job opportunities for students, and offer more community services at the Raiwind Road Campus.

The MOU was signed by the Dean, Faculty of Allied Health Sciences, Prof. Dr. Muhammad Naveed Babur, representing Superior University, and Ms. Parveen Amirali, representing Evercare Hospital, on behalf of the CEO, Evercare Hospital, Mr. Irfan Khan. At the end of the ceremony, Mr. Mudassar Kamran, Registrar of Superior University, gave souvenirs to the quests.







Glimpses of the MoU Signing ceremony

### Superior University inks MoU with Central Park Medical College, Lahore.



Superior University's Faculty of Allied Health Sciences has signed a Memorandum of Understanding (MOU) with Central Park Medical College, Lahore. This MoU focuses on working together on healthcare projects, improving job opportunities for students, and conducting joint research.

The MOU was signed by Prof. Dr. Muhammad Naveed Babur from Superior University and Prof. Dr. Aamir Mian from Central Park Medical College.







Glimpses of the MoU Signing ceremony

### Superior University inks MoU with Foundation University Islamabad



Superior University's Faculty of Allied Health Sciences recently hosted a delegation from Foundation University Islamabad. The delegation included Major Gen Muhammad Kaleem Asif (Retd), Rector, and Prof. Dr. Gulzar, Registrar representing

Foundation University Islamabad. The visit aimed to showcase the curriculum, facilities, and ongoing research at the Faculty of Allied Health Sciences.

Dean Prof. Dr. Muhammad Naveed Babur highlighted Superior University's innovative educational programs and teaching methods, and their impact on Pakistan's education and economy. At the end of the visit, Registrar Mr. Mudassar Kamran presented souvenirs to the guests.



### Superior's Faculty Representing Superior University at Global Stage

Global Sustainable Development Congress, Bangkok, Thailand.

Prof. Dr. Muhammad Naveed Babur, the Dean of the Faculty of Allied Health Sciences at Superior University, and Dr. Usman Sadiq, Assistant Director of the Social Entrepreneurship Program at Chaudhry Muhammad Akram Center for Entrepreneurship Development, were chosen to represent Superior University at the esteemed Global Sustainable Development Congress in Bangkok, Thailand. They were part of a team of eight university leaders and

researchers from various Pakistani universities, demonstrating Pakistan's dedication to addressing global sustainability challenges.

During the four-day congress, Prof. Dr. Naveed Babur and Mr. Usman Sadiq engaged in discussions, workshops, and networking sessions focused on achieving the United Nations' Sustainable Development Goals (SDGs). Their participation highlighted Superior University's commitment to contributing to global sustainability efforts and fostering collaboration among academic institutions worldwide.

Moreover, Superior University Lahore signed a Memorandum of Understanding (MOU) with Uzbeksitan's Namangan Institute of Engineering and Technology, Asher Navoiy State University of Uzbek Language and Literature, and Saveetha Institute of Medical and Technical Sciences (SIMATS).

These agreements set up a detailed plan for collaboration, including student and faculty exchange programs, sharing teaching materials, and creating joint training initiatives. These partnerships signified Superior University's dedication to fostering international cooperation and enriching academic experiences for its students and faculty.

### **Collaborations during Congress:**

















### Euras Training Academy - School of Art & Design





The Eurasian Universities Union, in collaboration with Superior University and Istanbul Aydin University, successfully organized the Euras Training Academy under the Faculty Development Program. This enriching session explored modern architecture and covered a range of inspiring topics, including Architecture, Interior Design, Digital Game Design, Textile Tours, and Graphic Design. Participants from the School of Art and Design engaged in dynamic discussions and hands-on activities, gaining valuable insights and innovative approaches to enhance their teaching and research in these vibrant fields.









### Capacity Building Initiatives - Knowledge Exchange Activities

An initiative for Research Skills enhancement

The main goal of knowledge exchange activities is to increase the knowledge base of the participants, foster collaboration, and promote university-wide research. The Office of Research Innovation & Commercialization under its "Knowledge Exchange Activities", organized a series of workshops, training, seminars, and colloquia by renowned professional experts in all disciplines. These Knowledge exchange activities are tailored to meet the needs of the participants. ORIC ensures every faculty member, and student has the right knowledge to strengthen their skills to achieve their own and the university's research agenda. The Following KEAs were performed during the year.



### Celebrating and Communicating

### **Faculty Achievement**

### Research on Al Skills and Career Sustainability Selected for Prestigious Academy of Management Conference

We're thrilled to announce that Dr. Bilal Ahmad, Associate Professor at the Faculty of Business & Management Sciences, The Superior University, Lahore, has achieved yet another remarkable milestone in his academic journey. His research paper titled "Knowledge of Al as a Future Work Skill for Career Sustainability: The Role of Person Job Fit" has been accepted for presentation at the esteemed 84th Annual Meeting of the Academy of Management in Chicago, Illinois, USA. Scheduled for August 2024, this conference is a pinnacle event in the field of management, drawing together top scholars and practitioners from around the globe.

Dr. Ahmad's paper highlights the critical intersection of artificial intelligence (Al) skills and career sustainability, shedding light on the role of person-job fit in this evolving landscape. His work promises to contribute significantly to our understanding of how individuals can thrive in an era where Al is reshaping traditional job roles and skill requirements.

#### **Dr. Bilal Ahmad**

**Associate Professor** - Faculty of Business & Management Sciences, The Superior University, Lahore.



### **Best Diplomats Malaysia**

"Fostering Inclusive Diplomacy and Future Leaders"

Mr. Zeeshan Ali Adnan - Program Leader, Department of Fashion Design, School of Art and Design has been selected as one of the distinguished delegates for Best Diplomats Malaysia. Best Diplomats focuses on making diplomacy more inclusive by connecting aspiring leaders worldwide in an enriching set-up allowing them to exchange views, acquire new skills, and become the next generation of leaders working towards a more sustainable future.

Building a more inclusive networked and effective multilateralism by promoting United Nations values and principles is at the core of our mission.

#### Mr Zeeshan Ali Adnan

Program Leader, Department of Fashion Design



### **American Society for Microbiology (ASM)**

Dr. Rabia Nawaz, Assistant Professor Department of Biological Sciences, Faculty of Allied Health Sciences - Superior University, Lahore has completed her two-year tenure (2022-2024) as a mentor in the esteemed American Society for Microbiology (ASM) Future Leaders Mentorship Fellowship.

Dr. Rabia Nawaz has been an active member of the ASM society since 2016, consistently inspiring and leaving a significant imprint in her field. Her expertise and dedication have earned her a special invitation as a power hour trainer on "Self Confidence" at the upcoming ASM Microbe event in June 2024.

The ASM Future Leaders Mentorship Fellowship (FLMF) is a transformative twoyear initiative aimed at pairing master's and doctoral students from historically marginalized backgrounds in microbial sciences with seasoned mentors from diverse career sectors. Through this program, participants undergo a journey of leadership development, bolstering their mentoring portfolios, widening their networks within ASM and beyond, and nurturing meaningful connections between fellows and mentors.



#### Dr. Rabia Nawaz

**Assistant Professor -** Department of Biological Sciences Design



Prof. Dr. Arfan Jaffar, Dean of the Faculty of CSIT at The Superior University, Lahore, has been awarded a prestigious fund project worth 3.5 million PKR under the Pakistan Science Foundation. This grant supports his innovative project titled "Innovative Robotic Rehabilitation System for Upper Limb Motor Impairment: Robo-litation," which aims to revolutionize rehabilitation for individuals with upper limb motor impairments through cutting-edge technology. Dr. Arfan, who holds a Post-Doctorate/Ph.D. in Computer Science, has conducted extensive research in Image

Processing, Data Science, Machine Learning, Computer Vision, Artificial Intelligence, and Medical Image Processing. In the healthcare industry, this cutting-edge technology will revolutionize rehabilitation methods, offering more efficient, precise, and personalized treatment for patients with upper limb motor impairments. This advancement can lead to faster recovery times, improved patient outcomes, and reduced healthcare costs. The project will enhance the quality of life for individuals suffering from motor impairments, enabling them to regain independence and functionality.

Won funding project worth

3.5 million

from the Pakistan Science Foundation

### **Student Achievement**

### 6th Semester Eastern Medicine Students Win 3rd Place at UBAS Product Development Competition

The 6th-semester students of the Department of Eastern Medicine, led by Dr. Marium Ahsan, won 3rd place at the recent UBAS Product Development Competition. They impressed the judges with their skills in mixing natural ingredients to make healthcare products. Competing against 25 other groups, their creativity, and hard work earned them this well-deserved recognition.



Students Receiving Token of Appreciation for securing 3rd place.

### **NAMAL CODEX'24**

Students from the Department of Computer Sciences showcased their exceptional skills and dedication by participating in the Namal Codex'24 coding competition at Namal University. Demonstrating advanced technical proficiency and innovative problem-solving abilities, our students competed against some of the brightest minds from 8 Universities and emerged as runners-up in the competition. Islam Ullah Khan - Vice Chancellor, University of Mianwali awarded prize money to the runners-up in the competition.



The Handbook of Advanced Chromatographic and Spectroscopic Techniques

ORIC is thrilled to unveil "The Handbook of Advanced Chromatographic and Spectroscopic Techniques" (ISBN: 978-969-23319-3-7), Edition 1 (2024), a remarkable achievement by 3rd- Year Pharm D Students, guided by Dr. Kanwal Ashiq from the Faculty of Pharmacy - Superior University.

This ground-breaking book offers interdisciplinary insights, explores applications across industries, delves into emerging trends and future directions, and covers a diverse array of topics encompassing both established and cutting-edge chromatographic and spectroscopic techniques.

This project is a testament to the mastery of advanced analytical tools by our students and underscores the transformative impact of experiential education in pharmaceutical research.



# United Nations International Day Celebrations

### International Mother Earth Day — 22 April 2024 Theme: Climate Change

ORIC celebrated International Mother Earth Day, highlighting the critical importance of building a sustainable economy that benefits both people and our planet. This day serves as a powerful reminder that every action we take, no matter how small, contributes to preserving our shared home. Together, we can make a significant impact by uniting to protect and cherish our planet.

#### **Featured Activities:**

#### Research:

Energy consumption and innovation-environmental degradation nexus in BRICS countries: new evidence from NARDL approach using carbon dioxide and nitrous oxide emissions

On International Mother Earth Day, Dr. Saif ur Rehman, Associate Professor at the Faculty of Economics and Commerce, The Superior University, Lahore, contributed a paper titled "Energy Consumption and Innovation-Environmental Degradation Nexus in BRICS Countries: New Evidence from NARDL Approach Using Carbon Dioxide and Nitrous Oxide Emissions."

The research focuses on BRICS nations—Brazil, Russia, India, China, and South Africa—revealing their dual role as major

contributors to global economic growth and environmental degradation. Before 2017, these countries collectively accounted for 41% of global CO2 emissions, highlighting their significant environmental impact. Factors such as abundant natural resources and increased trade openness have amplified their emissions levels.

Using advanced economic modeling techniques, the study found that higher economic activity and energy consumption typically lead to increased pollution levels, including carbon dioxide and nitrous oxide. However, it also identifies potential pathways to mitigate these effects through investments in technology and improvements in institutional effectiveness.

The findings underscore the urgent need for BRICS nations to prioritize sustainable development practices that balance economic growth with environmental stewardship, ensuring a cleaner and greener future for all.



the paper, Please Scan



To Watch Video, Please Scan

### Related Blogs – CARBS Business Review:

Explore our insights on sustainability and environmental stewardship:



The Ripple Effect: Climate Change Imperils Sustainable Food Security



A Wake-Up Call to Success in Achieving Healthy Environments & Sustainable Healthcare Through UN SDGs: Things to Know Scan:

### World Intellectual Property Day - 26 April 2024

### **Theme: Climate Change**

ORIC celebrated International Mother Earth Day, highlighting the critical importance of building a sustainable economy that benefits both people and our planet. This day serves as a powerful reminder that every action we take, no matter how small, contributes to preserving our shared home. Together, we can make a significant impact by uniting to protect and cherish our planet.

#### **Featured Activities:**

#### Research:

ORIC celebrated the remarkable impact of intellectual property (IP) on global innovation, creativity, and progress. At the Office of Research, Innovation & Commercialization, we recognize the pivotal role of IP in safeguarding and nurturing innovation. Whether it's a groundbreaking invention, a captivating work of art, or a revolutionary idea, intellectual property rights empower creators and innovators to bring their visions to life, ensuring they receive the recognition and rewards they deserve.

Together, we can forge a brighter future driven by imagination and protected by the strength of intellectual property.

Celebration of Superior University's Trademark on World Intellectual Property Day: Empowering young minds on #WorldIPDay with the pioneering spirit of Superior University's trademark "Oh My Genius" a Kids Entrepreneurship Program!



To learn more about Oh My Genius, please visit

### International Day of Plant Health – 12 May 2024

### Theme: Plant health, safe trade, and digital technology

On International Day of Plant Health, ORIC celebrated plants' vital role in sustaining life on Earth! From providing oxygen to supporting our food supply and ecosystem, they're essential for our well-being. Yet, plant pests and diseases threaten up to 40% of food crops annually, impacting food security and livelihoods. Climate change and human activity exacerbate these challenges, underscoring the urgency of global action. ORIC raised awareness and committed to safeguarding plant health for a healthier planet.



#### **Featured Activities:**

#### Research:

IoT and Machine Learning Based Stem Borer Pest Prediction

Global climate change has significantly impacted agricultural productivity, exacerbating pest attacks and posing substantial challenges to sustainable development in agriculture to meet the needs of a growing human population. Invasive pests alone

incur an estimated annual cost of \$220 billion globally, underscoring the urgency for proactive pest management strategies. Recognizing the critical role of early warning systems, this study focuses on predicting stem borer attacks on sugarcane crops through loT-enabled monitoring of field conditions. Leveraging machine learning, specifically the Naïve Bayes classification approach, the system interprets real-time data on temperature, humidity, and rainfall to forecast pest occurrences relative to Economic Threshold Levels (ETLs). This approach aims to bolster sustainable agricultural practices by optimizing pesticide use, conserving resources, and mitigating environmental impacts while ensuring crop protection and productivity.



To read more about the paper, Please Scan



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### World Environment Day - 5 June 2024

### Theme: land restoration, halting desertification, and building drought resilience

All over the world, ecosystems are under threat. From forests and drylands to farmlands and lakes, the natural spaces on which humanity depends are reaching a tipping point.

ORIC celebrated This year World Environment Day which focuses on land restoration, halting desertification, and building drought resilience under the slogan "Our land. Our future. We are #GenerationRestoration."



According to the UN Convention to Combat Desertification, up to 40% of the planet's land is degraded, directly affecting half of the world's population. The number and duration of droughts have increased by 29% since 2000. Without urgent action, droughts may affect over three-quarters of the world's population by 2050.

#### **Featured Activities:**

#### Research:

Effects of Mulching on Soil Biota and Biological Indicators of Soil Quality

Soil health is fundamental to sustainable agriculture, yet urbanization and intensive land use often degrade agricultural land,

necessitating effective soil management strategies. Mulching emerges as a critical practice in this regard, improving soil biota, enhancing organic content, and fostering better soil structure. It also aids in moisture retention, regulates soil temperature, suppresses weeds, and reduces the need for chemical inputs. Farmers widely adopt mulching for its proven benefits, including improved crop growth, higher yields, and reduced pest and disease pressures. Community education on mulching techniques plays a vital role in promoting sustainable farming practices, ensuring long-term soil health and agricultural productivity.



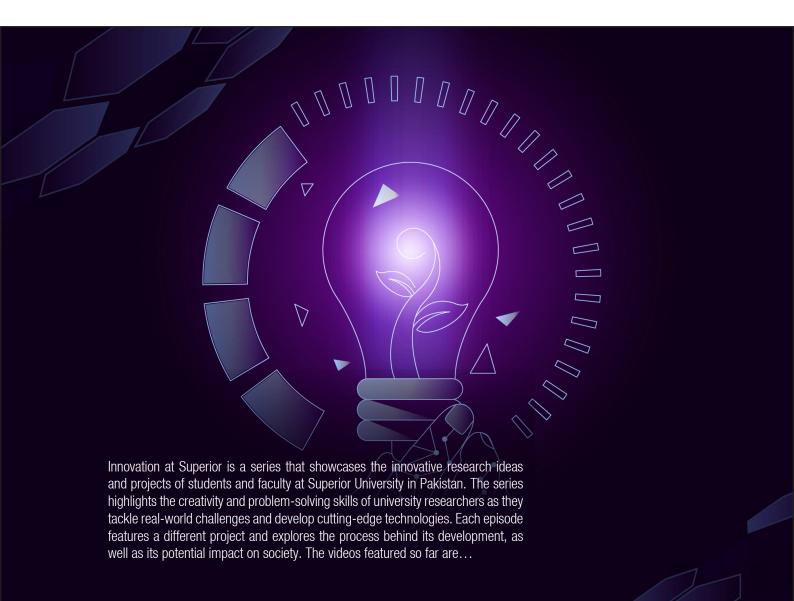
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To Watch Video





### Revolutionizing Brain Tumour Detection by Using Deep Learning Algorithm

Brain tumors, which can develop due to aging or brain damage, pose significant health risks. Detecting these tumors using MRI scans is crucial, but their analysis is complicated by variations in size, shape, and appearance. To address this challenge, Muhammad Javaid Iqbal, a Lecturer at Superior University's Faculty of Computer Sciences and Information Technology, has developed an automated model for MRI tumor segmentation. This innovative model preprocesses MRI data applies the U-Net deep learning algorithm, and categorizes tumors based on features like enhancing tumors, edema, and necrotic core. By automating this process, doctors can swiftly pinpoint tumor regions, improving diagnostic accuracy and patient care. Hospitals can now integrate this technology to expedite tumor localization and provide timely medical interventions to patients in need.



Muhammad Javaid Iqbal
Lecturer
Faculty of Computer Sciences and Information Technology



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### **Exploring BRICS Nations' Environmental Concerns Amid Economic Growth**

The BRICS nations—Brazil, Russia, India, China, and South Africa—have become pivotal in the global economy, but their economic ascent has come with significant environmental repercussions. Prior to 2017, these countries collectively accounted for 41% of global CO2 emissions, highlighting their substantial role as contributors to global pollution levels. Researchers employing the nonlinear autoregressive distributed lag (NARDL) method from 1990 to 2021 have studied how economic growth, energy consumption, adoption of environmental technologies, and institutional effectiveness influence air quality and greenhouse gas emissions. The findings indicate that increased economic activity and energy use typically lead to higher levels of pollution, including carbon dioxide and nitrous oxide. Moreover, heightened trade openness exacerbates these emissions. However, the study suggests a promising avenue: through investments in innovative technologies and improvements in institutional frameworks, these nations can mitigate environmental impact while promoting sustainable economic growth. This underscores the imperative for BRICS countries to prioritize environmentally responsible practices, striking a balance between economic development and environmental conservation for a cleaner and more sustainable future.



**Dr. Saif Ur Rehman**Faculty of Economics and Commerce,
The Superior University



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### Revolutionizing skin cancer detection through Image Processing

In Pakistan, melanoma, the most prevalent type of skin cancer, affects individuals across all age groups. Globally, skin cancer ranks fifth among all cancers, with melanoma accounting for 1.6% of cases. The overall mortality rate for skin cancer ranges from 0.6% to 0.7%. Saleem Mustafa, a Junior Lecturer at the Faculty of Computer Sciences and Information Technology at Superior University, is actively researching automated methods for detecting skin cancers. Skin image analysis is commonly utilized for early detection, yet traditional methods face challenges such as unclear images and reflections. Mr. Saleem Mustafa proposes using the active contour method, which tackles issues like seed selection through a Gaussian filter-based maximum entropy solution. This advancement holds promise in advancing towards early detection and effective treatment of life-threatening diseases like melanoma, enhancing patient outcomes and reducing mortality rates.



Saleem Mustafa
Junior Lecturer
Faculty of Computer Sciences and Information Technology



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### **Using IoT & Machine Learning to Predict Sugarcane Pest Attacks**

Global climate change has significantly impacted agricultural productivity, exacerbating pest attacks and posing substantial challenges to sustainable development in agriculture to meet the needs of a growing human population. Invasive pests alone incur an estimated annual cost of \$220 billion globally, underscoring the urgency for proactive pest management strategies. Recognizing the critical role of early warning systems, this study focuses on predicting stem borer attacks on sugarcane crops through IoT-enabled monitoring of field conditions. Leveraging machine learning, specifically the Naïve Bayes classification approach, the system interprets real-time data on temperature, humidity, and rainfall to forecast pest occurrences relative to Economic Threshold Levels (ETLs). This approach aims to bolster sustainable agricultural practices by optimizing pesticide use, conserving resources, and mitigating environmental impacts while ensuring crop protection and productivity.



Dr. Arfan Jaffar Faculty of Computer Sciences and Information Technology



### **Exploring the Use of Traditional Medicinal Plants for Hyperuricemia and Hypertension**

Hypertension affects around 13 billion people globally and is responsible for 13% of all deaths worldwide. Hyperuricemia, caused by high uric acid levels, not only leads to painful joints but also correlates with kidney disease, heart disease, type 2 diabetes, and hypertension itself. Dr. Kanwal Ashiq, a Lecturer at Superior University's Faculty of Pharmaceutical Sciences in Lahore, has researched the effectiveness of lowering uric acid levels in controlling blood pressure. Her investigation explores both traditional and natural treatments, with a focus on medicinal plants that offer diverse active compounds with potential therapeutic benefits. The study proposes combining natural remedies with conventional treatments to enhance the management of these interconnected health issues.



**Dr. Kanwal Ashig** Faculty of Pharmaceutical Sciences Superior, Lahore



### The Impact of Mulching on Soil Health and Quality

Soil health is fundamental to sustainable agriculture, yet urbanization and intensive land use often degrade agricultural land, necessitating effective soil management strategies. Mulching emerges as a critical practice in this regard, improving soil biota, enhancing organic content, and fostering better soil structure. It also aids in moisture retention, regulates soil temperature, suppresses weeds, and reduces the need for chemical inputs. Farmers widely adopt mulching for its proven benefits, including improved crop growth, higher yields, and reduced pest and disease pressures. Community education on mulching techniques plays a vital role in promoting sustainable farming practices, ensuring long-term soil health and agricultural productivity.



Dr. Ali Aslam **Assistant Professor** Faculty of Agriculture and Veterinary Sciences



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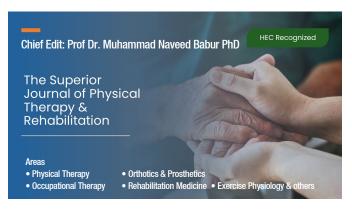
### Our Knowledge Dissemination Platforms

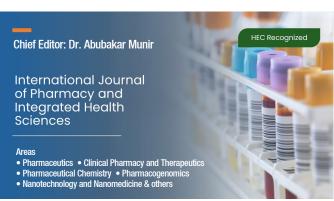
## Superior's Research Journals

The commitment of Superior University to fostering a robust research environment is evident through its dedication to knowledge dissemination and exchange. Recognizing the pivotal role played by esteemed journals in cultivating a vibrant research culture, the university takes pride in its publication of 12 journals, with 7 of them acknowledged by the HEC Journal Recognition System (HJRS). These recognized journals persistently release their issues, furthering the university's contribution to quality research. We are pleased to share that the following journals of Superior University:







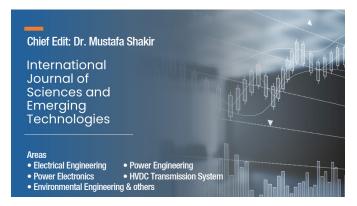


















### CARBS BUSINESS REVIEW

A Knowledge Sharing Plateform by 1st Entrepreneurial Business School of Pakistan

There are very few platforms available in the business schools of Pakistan where professionals and experts can share their practical knowledge and insights about their industry with others. Similarly, the knowledge produced by scholars through research papers does not reach managers and professionals because the language and structure of research journals are not suitable for this audience. To bridge this gap, Chaudhry Abdul Rehman Business Schools has launched CARBS Business Review, a platform dedicated to providing insightful and thought-provoking articles, analysis, and commentary on various aspects of Pakistan's economic and social landscape. CARBS Business Review will serve as a tool to bridge the industry-academia gap and promote insights and best practices of Pakistani business leaders.



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