PCSRC

PAK-CHINA STUDY AND RESEARCH CENTER

pcsrc@bahria.edu.pk

Maintaining close relations with China is an integral part of Pakistan's foreign policy. Pakistan and China have placed considerable importance on the maintenance of an extremely close and supportive relationship. Chinese cooperation with Pakistan has reached economic high points, with substantial Chinese investment in Pakistani infrastructural expansion including the Pakistani deep-water port at Gwadar. The biggest development off late to open the China-Pakistan Economic Corridor (CPEC) has changed the situation completely as China has carved an enormous plan for economic growth and development in Pakistan. The Pak China Study & Research Center (PCSRC) has been envisaged to be the central point for multidisciplinary academic, research, entrepreneurial, business and collaborative activities in Pakistan with respective Chinese counterparts. PCSRC at Bahria University (BU) aims to address key challenges in a variety of areas spread over a swath of scientific, technological, business, logistic and cultural domains. To this end, PCSRC will constitute four interconnected nodes - Research & Innovation Center; Collaborative Facilitation Centre; Chinese Language Center; Culture & Cohesion Center. PCSRC is designed to focus on key areas of Pak China collaboration, identify prospective challenges, ideate plans and execute projects through in-house as well as external resources for knowledge production and providing key solutions. With a strong portfolio of development projects in the mentioned domain, and strong international and national pool of research experts, BU's PCSRC is currently working in multiple research endeavors in collaboration with public and private stakeholders from China and Pakistan.

OBJECTIVES

- To enhance innovative interdisciplinary research and education under different thematic areas in collaboration with Chinese counterparts.
- To create liaison and facilitate scholars, researchers, and students from various fields of study such as economics, politics, management, maritime, international relations, environment, technology, and socio-cultural aspects
- To identify opportunities in the context of the development of CPEC such as opportunities associated with establishment of special economic zones.
- To produce research-based literature on the importance of CPEC as a viable economic activity between Pakistan and China and converting the same into Applied Research leading to commercialization.
- To propose policy recommendations for the leadership to take appropriate decisions.
- To develop business case studies for CPEC related endeavors and other projects involving Chinese counterparts.
- To enhance academic activities including exchange programs, research visits to Chinese universities and research organizations.

KEY COMPONENTS OF PCSRC

RESEARCH AND INNOVATION CENTRE:

Academic research is axiomatic for innovating, this centre will fuel passion and dedication to evolve, cutting-edge disruptive innovation with focus on international policy and dynamics of China, by capitalizing synergic mutual interest between Universities of both countries in multiple precincts. Strategically it will look beyond selling and genuinely will make attempt to shape the future of Pakistan.

BUSINESS FACILITATION CENTER (BFC):

BFC is enthused to expand the business and trade relationship between Pakistan and China by facilitating marketing and routing inquiries for partnership, investment and business collaboration to Pakistani counterparts. Primarily it aims at providing intelligence to intending investors about investing and dealing in China and CPEC-related.

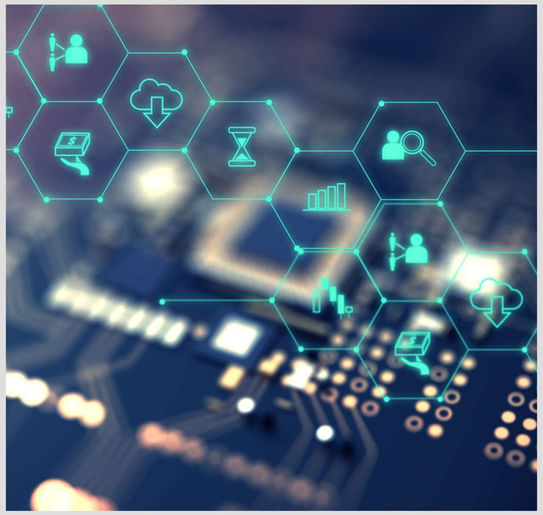
MANDARIN LANGUAGE CENTER:

Bridging and playing pivotal role in relationship between the two countries, Mandarin Language Centre will design, develop and reinforce language skills, by offering a wide range of courses for professionals and everyday users.

CULTURE & COHESION CENTER:

Embarked on a journey of CPEC, China and Pakistan are exchanging their cultural values, norms and patterns. This centre will develop cohesion and comprehension between the societies through socio-economic activities to promote mutual understanding and cultural harmonization.

RESEARCH & SERVICES PORTFOLIO



Information & Communication Technologies

Being one of the academic leaders in Pakistan in the field of IT / Engineering, our professionals are providing cutting edge research to the industry in multiple areas of development and entrepreneurial domains. Our researchers are engaged in diversified domains of research including Computer Vision, Internet of Things, Wireless Sensor Networks, Business Analytics, Robotics and AI, Applied Mathematics, and emerging Blockchain Technology. Renowned institutions and universities of China including the prestigious, Chinese Academy of Sciences, Ministry of Science and Technology China, and Jiangsu University are the leading collaborators amongst many. Some of the leading projects include enabling business intelligence solutions, and novel spatio-temporal blockchain systems, Underwater Robot Docking System and Robot Apple Harvester via image visualization and recognition (funded and supported by the Ministry of Science and Technology of both China and Pakistan).

Logistics

For Pakistan, the biggest challenge in the logistics sector is to deliver according to the requirements for efficient execution of "CPEC", where there is a dire need for the stakeholders to bridge the gap between the industrial works and deep understanding of an Integrated Logistic mechanisms. Integrated Logistics research and consulting specialists at SIL advice and support in designing and developing Made-to-Measure solutions to all size industries in addressing their internal and external integrated logistics challenges. Tailored interdisciplinary teams deliver cross-industry and customer-specific Integrated Logistics Research and further support in delivering Strategies, Planning, Management and Execution solutions. The focus areas are CPEC and beyond, Multimodal Logistics Harmonization, Maritime Logistics and Services Excellence, Industrial and Defense Supply Chain Management and Integrated Industrial Zones. Further areas under Integrated Logistics include supply network design, fleet management, materials handling, warehouse management, simulation supported business, traffic systems, intelligent logistics, infrastructure logistics, green logistics and digital logistics.

Media & Cultural Studies

Being the pioneers and leaders of applied as well as strategic media discipline, our researchers lead in all the areas of fast moving converged media environment. This thematic area will also focus on cross-cultural activities and enhance people to people contacts

Mandarin Language Center

BU is establishing two state of the art labs at its Karachi and Islamabad campus in collaboration with the Pakistan Navy. With the increase in bilateral relations between Pakistan and China in various key areas of interest and fronts, the language center aims to provide attractive and interactive Mandarin language learning facilities through the Language Lab. The Center initially plans to launch a basic Mandarin Language course, and gradually introduce an expert certificate and degree programs for academicians and professionals.

International Relations Wing (IRW)

Our researchers at the IRW of PCSRC are highly experienced and are currently involved in various projects involving regional and international issues, social development, language learning and public policy. As a degree awarding and research-oriented institution, our services are sought after due to its high-quality research, the integrity and expertise of our foreign qualified faculty and the impartiality of our work. Our clients' portfolio constitutes of governmental organizations, armed forces and other relevant public and private sector institutions, universities, and industries. The IRW offers policy-oriented service for the mentioned stakeholders/clients. IRW can provide; 1) Analysis, policy advice, risk analysis and capacity building to governmental institutions and industry. 2) Diverse policy recommendation on rising security challenges from threats foreign and domestic, and their countermeasures. 3) Operational Strategy on Narrative Building to safeguard CPEC. 4) Customized training courses, seminars and workshops to local and state governed institutions, law enforcement agencies and to the private sector organizations on changing dynamics of Global and Regional Order: Casting Threats and Opportunities for Pakistan. 5) Formulation of feasibility studies and consultations on security, crime prevention, protection of infrastructures.

Environmental Sciences

Keeping in track the landmark development in the field of Environmental and Earth Sciences, BU has been working on solving the greatest problems faced by earth today, including climate change and natural resources scarcity. BU has one of the largest, most highly reputed, commercial testing and diagnoses laboratory services facility in Pakistan and is constantly working and collaborating with local/International public and private sector organizations to building solutions for a better and prosperous tomorrow. Recently with the advent of initiatives such as the CPEC, BU has collaborated with major Academic and Public sector Partners. An Understanding was reached between China's Geological Survey and BU in areas of Knowledge sharing and Technology Transfer. Further areas of collaboration included various researched themed workshops, seminars and symposia, comparative studies on mineral exploration and prospecting techniques, resources assessment and exploration, seismology and GIS application.

Business Facilitation Center

We produce excellent management professionals here at BU. Our keen insightful research gives us an edge into multiple and diversified areas of public, private and development sectors encompassing a wide swath of disciplines. With a dedicated team of Professional academician with industrial expertise, bringing forth greatest mind, knowledge and experience to inspire and transform business across the board, The BFC can help formulate and resolve industrial and business problems with a diverse business services and facilitation portfolio. This center aims to equip, facilitate and provide to its clients tailored built end to end consultancy services and insights to businesses regarding its local/international investment opportunities, Pivoting their business and investment strategies, company registration and regulatory requirements, business risk optimization and mitigation, taxation, Government and regulatory affairs and policies via focused, in-depth and need based research and marketing consultancies.

Maritime Affairs

With the operationalization of Gwadar Sea Port and upcoming project being erected in collaboration with CPEC, the demand of skilled manpower especially in the maritime sector has increased manifold. Embedded with Pakistan Navy, BU has a unique edge in all maritime related affairs. BU has established environmental research center which has been providing research testing and consultancy services in the domain of environmental compliance and national environmental control with specialization in environmental issues relevant to marine and maritime. ERC is Env Protection Agency 2009 &ISO 4001 certified. BU has further established Aquatic diagnostic Lab that provides lab testing services with an emphasis on risk analysis for different types of sea food, processing and quality management. The Smart integrated logistics unit at BU has been providing solutions and services for the maritime logistics domain. BU is also conducting feasibility study for establishment of School of Maritime and establishment of Maritime Science & Technology Park.

KEY RESEARCHERS

Dr. Zubair Iqbal

Dr. Zubair Iqbal is currently serving as the Director of Pakistan-China Study and Research Center. Dr. Iqbal is an ex Member Planning Commission of Pakistan as well as the Cheif Executive Officer of Lahore Knowledge Park. He is a seasoned academic, researcher, policy advisor and strategic leader. He is an alumnus of institutions like Westminster, Tufts, Chulalongkorn and Ulster universities as well organizations like the Hague Institute of Governance and National University of Budapest. He has been involved in various research projects related to knowledge Management, Conflict Management, Communication Management, Media and governance.

Prof. Dr. Shehzad Khalid

Dr. Shehzad Khalid is the Founding Director of PCSRC and is currently serving as Dirctector Research innovation, Commercialization at Bahria University. He is a professor in the field of Computer Vision and Machine Learning and heading the Reseach Center of Multimedia Data Analytics Research. He has facilitated colaborations between BU and numerous Chinese Universities inlcuding Shenzhen and Jiangsu University. He is a receiver of Best University Faculty Award and Best Researcher Award from Higher Education Commission, Pakistan, and Bahria University, respectively. He also is a lead mentor at Bahria Innovation Center and is responsible for successfully commercializing sustainable SME and Businesses.

Dr. Muhammad Muzammal

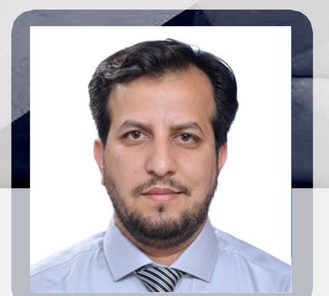
Dr. Muhammad Muzammal is an Associate Professor, and HoD at CS Department BUIC. He specializes in Data Science and Decentralized Systems. Dr. Muzammal has won funded projects from Prestigious Visiting Fellow, Chinese Academy of Sciences. He has been working on various Blockchain related project in collaboration with Shenzhen University. He has been an active researcher with more than 40 research publications at reputed conferences and journals. His recent research interests include application of data mining techniques to automated big data analysis of online as well as offline data, and application of decentralized techniques to emerging blockchain systems.

Prof. Dr. Tahseenullah Khan

Dr. Tahseenullah Khan is heading the Department of Earth and Environmental Sciences, Bahria University, Islamabad. He is a geologist by profession and has 39 years of industry, research and teaching experience. Dr. Tahseenullah khan has been involved in many international projects including Geological Surveys of Japan and China, Naruto University of Education, Japan, University of Kagoshima, Japan and University of Grenoble France, Centre de Recherches Pétrographiques et Géochimiques (CRPG), France, and Amdel Mineral Laboratories, Australia. His major specialties are Geological mapping, mineral investigation, gemstone exploration, testing and mining. He has published more than 170 international and national research papers and extended abstracts, conference papers and book chapters. Many of his international papers are Q1 ranked. He published a book on "Gems and Gemmology in Pakistan" in 2010.

Prof. Dr. Muhammad Ramzan

Prof. Dr. Muhammad Ramzan is a Senior Professor in the Department of Computer Sciences, BUIC and also heading the "Computational Fluid Dynamics" research group. His research area includes Wave motion, Computational Fluid Dynamics, nanofluid, and heat transfer. Dr. Muhammad Ramzan has collaborated with the university of Zhenjiang, China in the key area of Numerical methods for heat and fluid flow. He has an experience of 24 years of teaching and research at National and International Universities. He has published 63 ISI Indexed journal papers with an accumulative impact factor 150. He has strong research collaboration ties with Sejong University, South Korea, Jiangsu University, China, and Majmaah University, Saudi Arabia. He is also the Visiting Professor at Jiangsu University, China.



Dr. Khalid Javeed

Dr. Khalid received PhD from School of Electronics Engineering, Dublin City University. His Ph.D. study was funded by Telecommunication Graduate Initiative (TGI). He is currently senior Asst. Professor and Head of Computer Engineering Department. Dr. Javeed has strong reserach and development collaboration with China. He is the Principle Investigator of a Joint Project " Autonomous apple harvestor. His research focuses on cryptographic engineering, hardware software co-design and hardware acceleration of signal processing & machine learning algorithms. He has published several research papers in journals and conferences of international repute. He is a reviewer of IEEE Trans. on Circuit and Systems II, IEEE Trans. on VLSI and Elsevier Microprocessor & Microsystems.

Dr. Azhar Ahmed

Dr. Azhar Ahmed is the Head of Humanity and Social Sciences Department at BU. He is also a distinguished researcher of Asia-Africa development and exchange society of China in Beijing, He is further a Senior Research Associate of Institute of Policy Studies, Islamabad and Associate Member of Corbett Centre for Maritime Policy Studies, King's College, London, UK. His research areas include China, Indian Ocean, Maritime, Regional Politics, Peace & Conflict. His book titled "Balance in Transition" has been published in both English & Chinese languages by Yunnan University Press, China.

Dr. Rizwan ul Haq

Dr. Rizwan is working as a Sr. Assistant Professor in EE Dept. BUIC. His areas of expertise include computational Fluid Dynamics, Heat Transfer and nanofluids. Dr Rizwan has collaborated with Peking University and Jilin University, China on various research projects in the field of Mathematical modeling and simulation of nanofluid flow and heat transfer. Amongst his many research endeavors, he has International research experience in Department of Mechanical and Material Engineering, , Western University, Canada where he developed and tested numerical algorithm for fluid over a corrugated surface. Dr. Rizwan has published more than 84 impact factors ISI publications with a total impact factor more than 155. Total citations of his entire publications are 2765. The h-index is 29 and i-10-index is 61. He has achieved Research Productivity award and Productive scientist of Pakistan through Ministry of Science and Technology.

Dr. Shujjaat Khan

Dr. Shujjaat Khan has been associated with international robotics industry since 2006. He is an integral part of various innovative ventures in New Zealand, Australia, USA, China and Malaysia. He currently is working on two projects namely an Underwater Robot Docking System and Apple Harvesting Robot based on Visual System with the Ministry of Science and Technology China. During the span of his international exposure, Dr. Khan has extended his services to many state-of-the-art organizations such as Callaghan Innovation, Scott Technology New Zealand, Veritaxa, E-Byte New Zealand, General Electric USA, Fisher & Paykel, Bravo Zulu International, Pakistan Air Force, Silver Fern Farm NZ and RobotWorks USA. His major projects include Milking robots, Meat Processing robots, Aircraft simulators, Robot soccer and Dermal Imaging. Dr. Khan is an active member of many professional organizations like IEEE, IET, ICRC & ICSFE.

Dr. Ali Imtiaz

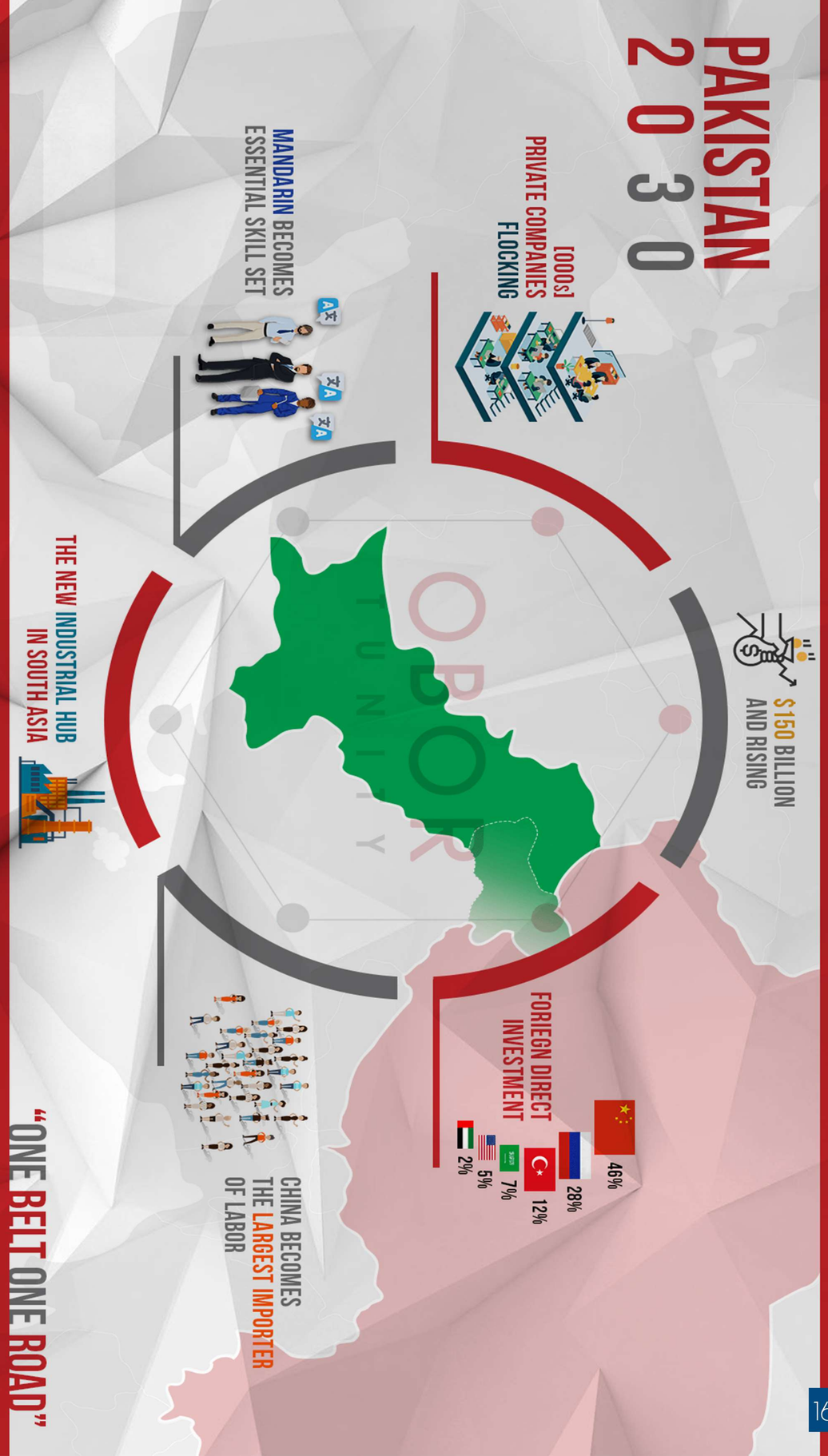
Dr. Ali Imtiaz is Associate Professor at Bahria University, head of Research Institute for Smart Integrated Logistics (SIL) and is leading the research cluster of Enterprise Logistics. He has profound experience in Top Tier Strategy and Management Consultancy, and management of large-scale international R&D projects. He holds a Doctorate in Industrial Engineering from RWTH Aachen Germany and is a member of Global Leadership Development Community of Harvard Business School and a member of advisory board of CELL Foundation Maastricht, The Netherlands. He combines knowledge and expertise from both industry and academia based on projects with global clients from private and public sectors; incl. DAX listed companies, GoP and European Commission. Dr. Imtiaz has also advised several leading conglomerates on developing, transformation and restructure their portfolio strategy

Dr. Rizwana Abbasi

Dr Abbasi is presently an Associate Professor in the Department of H&SS, BUIC. She is also a fellow of EastWest, Institute New York. Dr. Abbasi is a former Fellow of Stimson Center, USA. She was associate professor in the Department of International Relations at NDU, Islamabad. Dr. Abbasi received her PhD from the University of Leicester, UK, specializing in International Security and Nuclear Non-proliferation. Previously she was a post-doctoral research fellow and taught at the University of Leicester. She was also a research fellow at the University of Leeds, UK. She is also a graduate of the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii. She has authored two books titled:Pakistan and the New Nuclear Taboo: Regional Deterrence and the International Arms Control Regime & Nuclear Deterrence in South Asia: New Technologies and Challenges to Sustainable Peace She regularly writes for reputed national and International Academic Journals.

Dr. Safia Mushtaq

With more than 17 years of experience in established Marine Biology, Aquaculture, Fisheries, R&D organizations, FAO of United Nations. She holds Ph.D. in "Marine Biology". She have been invited by the academic panel of various universities to upgrade curricula as per international requirement. She has reviewed many research papers . She was selected as National Fisheries Expert by FAO and have been invited to play role in policy formulation. She recieved funding for establishing the Aquatic Diagnostic Lab at BU, for the first time in Pakistan. She received certification for ADL from Bureau of veritas for 9001-2015 while accreditation for ISO/IEC 17025 is in processes from Pakistan National Accreditation Council . ADL is in processes of upgradation with a title of "Center of Excellence in Marine Research. She is running ADL as per World Animal Health Organization Standards (OIE) .She has various publications in the area. She has received funding from Hilton Pharma, FDB, Marine Fisheries Department M/o MFD Pakistan, Fisherman Exporter Association , and from HEC; ISULL, SRGP, SIOP.

Dr. Yasmin Nergis

Dr. Nergis was appointed as an Assistant Professor effective from June 2007 and became Incharge on Jan 2008. Later on 2018 she became Head of Department of Earth and Environmental Sciences. Dr. Nergis is a qualified Environmentalist with more than 25 years of technical, teaching and managerial experience in education, environment, health, and safety sector. She has founded Hydrochemistry Lab with collaboration of Tubingen University Germany at Hamdrad University Karachi a first of its kind research and commercial lab in Pakistan in 1993 and was its Incharge of Laboratory till June 2007. So far she has earned two research projects one from HEC in 2008 on ecosystem profiling of Sindh east, and one from DRD on Thar Coal exploration in 2010. She published more than thirty research articles in journal of national and international repute. More than one hundred commercial studies project are on her credit so far across the multi environmental challenges.