# Minutes of the 1st Meeting of

# Relevance Assessment Committee (RAC)

# Faculty of Engineering & Sciences

# held on 1st April 2024 through MS Teams



# Bahria University Islamabad

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# Minutes of the 1ˢᵗ RAC Meeting of Faculty Board of Studies Engineering Sciences

**Relevance Assessment Committee**

| | | |
|---|---|---|
| Prof. Dr. Faisal Bashir Hussain | Dean ES | Chair |
| Prof. Dr. Shahzad Khalid | Principal BSEAS H-11 | Member |
| Assoc. Prof. Dr. Sohaib Ahmad | Principal BSEAS BUKC | Member |
| Mr Fazal e Wahhab | Dir QA | Member |
| Prof. Dr Asad Waqar | Dir PGP | Member |
| Prof. Dr. Arif ur Rehman | HoD (CS) BUIC E8 | Member |
| Prof. Dr. Moneeb Gohar | HoD (CS) BUIC H-11 | Member |
| Assoc. Prof. Dr. Said Akbar Khan | HoD(E&ES) BUIC H-11 | Member |
| Assoc. Prof. Dr. Junaid Imtiaz | HoD (EE) BUIC H-11 | Member |
| Assoc. Prof. Dr. Adeel Syed | HoD (SE) BUIC H-11 | Member |
| Assoc. Prof. Dr. Mukesh Kumar Maheshwari | HoD (EE) BUKC | Member |
| Assoc. Prof. Dr. Salma Hamza | HoD (E&ES) BUKC | Member |
| Assoc. Prof. Dr. Syed Safdar Ali | HoD (CS) BUKC | Member |
| Assoc. Prof. Dr. Hina Shakir | HoD (SE) BUKC | Member |
| Prof. Dr. Moazzam Khattak | Quaid e Azam University | External Member |
| Prof. Dr. Hammad Afzal | NUST | External Member |
| Assoc. Prof. Dr Amanullah Yasin | Air University | External Member |
| Prof. Dr. Syed Ali Hassan | NUST | External Member |
| Prof. Dr. Sohail Nadeem | Quaid e Azam University | External Member |
| Assoc. Prof. Dr. Sadia Hina | Fatima Jinnah University | External Member |
| Assoc. Prof. Dr. Javed Nawab | KUST | External Member |
| Assoc. Prof. Dr. Said Muhammad | University of Peshawar | External Member |

# Proceedings

## Preliminaries

FBoS-RAC meeting took place on 1$^{st}$ April 2024, with the quorum complete, the proceedings commenced at 1000 hours, with recitation of the Holy Quran.

In his opening remarks, the Chair stressed the importance for participation in the proceedings while staying focused on the point under deliberation.

# Item no. 0101: Relevance of PhD Supervisors - CS Dept BUIC E-8

The agenda was presented by HoD CS and the RAC finds the following PhD Faculty Members relevant to the research topic/domain of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | Shahela Saif | 01-284181-002 | Identification of Synthetically Generated Video using Forensic Analysis Techniques | Digital Image Analysis, Multimedia Forensics, Deep Fake, Synthesized Images. | Dr. Samabia Tehseen |
| 2 | Saneeha Khalid | 01-284172-002 | Obfuscated Android Malware Detection using Dynamic Analysis Techniques | Malware Obfuscation, Dynamic Malware analysis, Android security, Mobile security | Dr. Faisal Bashir |
| 3 | Abeer Iftikhar | 01-284202-001 | Security Provision by Using Detection and Prevention Methods to Ensure Trust in Edge Based Smart City Networks | Edge computing, Trust management, Smart cities, Detection and prevention of Cyber attacka | Dr Kashif Naseer |
| 4 | Amir Ali | 01-284202-002 | Neuropsychological Assessment using Intelligent Techniques for Dyslexic Children | Dyslexia Cognitive assessment Intelligence tests Reading disorder Linguistic risk factors | Dr. Sumaira Kausar |
| 5 | Shahid Mahmood | 01-284212-002 | Trust Management Framework for Resource-Constrained Edge Devices | Trust framework Resource-constrained devices Edge computing Security Quality of service (QoS) | Dr. Moneeb Gohar |

| 6 | Qasim Mehmood | 01-284221-001 | Document Visual Question Answering to Interpret Multiple Modalities in Document Images | Visual question answering Document images Multi-modal analysis Layout information SlideVQA | Dr. Samabia Tehseen |
|---|---|---|---|---|---|
| 7 | Athar Waqar Alvi | 01-284221-002 | Lightweight Framework for Auto Management of Digital Certificates in Industrial Internet-of-Things Network | Digital certificates Industrial IoT Symmetric cryptographic mechanism Certificate authority management Elliptic Curve Diffie Hellman (ECDH) | Dr. Moneeb Gohar |
| 8 | Nasir Iqbal | 01-284212-001 | Realistic Synthetic Malware Generation for Improving Robustness of Malware Detection Models | Malware generation Robustness enhancement Generative Adversarial Networks (GANs) Adversarial training Black-box attack | Dr. Faisal Bashir |
| 9 | Nasir Ali | 01-284232-003 | A Novel Hybrid Framework for Detecting Fileless Cryptojacking Malware | Fileless cryptojacking, Hybrid framework, Real-time detection, Statistical code analysis, WebAssembly | Dr. Moneeb Gohar |
| 10 | Muhammad Akram Sahi | 01-284232-006 | Intelligent Resource Management in Software Defined Networks via SDn Controller | Software-Defined Networking (SDN) Resource allocation Infrastructure mapping Edge computing Dynamic resource management | Dr. Muhammad Khurram Ehsan |
| 11 | Lala Rukh Majeed | 01-284232-002 | Intelligent TRUST Framework for Secure and Reliable Internet of Things (IoT) | IoT ,Security Trust framework Privacy Data sharing, Machine Learning | Dr. Saba Mahmoud |

| 12 | Qadeer Hashir | 01-284232-004 | AI-based Techniques for Analyzing Health-related Challenges, especially Drug-to-Drug Interaction and its Exorbitant Effects | Artificial intelligence, Drug interactions, Health challenges, Pharmacovigilance Adverse effects | Dr. Muhammad Asfand-e-Yar |
|----|---------------|----------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------|
| 13 | Umair Saeed | 01-284232-005 | Non-Invasive Early Diagnosis of Diseases using Computer Vision Techniques | Computer vision Disease diagnosis Non-invasive Medical imaging Early detection | Dr. Sumaira Kausar |
| 14 | Ateeq ur Rehman | 01-284232-001 | Performance Efficient, Edge based distributed anomaly detection framework for smart devices | Edge computing Anomaly detection Distributed framework Smart devices Real-time response | Dr. Moneeb Gohar |
| 15 | Muhammad Rizwan Sarfraz | 01-284232-007 | Security Issues of QUIC and Solutions | IoTs, Energy Constrained Devices, Cyber Threats, Transport Layer, Application Layer | Dr. Moneeb Gohar |
| 16 | Tabinda Sajjad | 01-283191-001 | Non Orthogonal Stagnation Point Flow of a Nanofluid Along a Moving Surface | Fluid Mechanics, Flows, Nano Fluids, Mathematical Modelling | Dr. Rizwan ul Haq |
| 17 | Nazia Shahmir | 01-283202-001 | Effects of magnetohydrodynamics on mono and hybrid nanofluid flows over different geometries | Magnetohydrodynamics, Hybrid nanofluid Darcy–Forchheimer theory, Slip conditions, Exponential stretchable sheet | Dr. Muhammad Ramzan |
| 18 | Ali Raza | 01-283202-002 | Mixed convection analysis due to heated source in channels and deformable enclosure | Mixed convection, Heated source, Channel-cavity, arrangement Curved pipe, Secondary flow | Dr. Jafer CO Dr. Rizwan-ul-Haq |
| 19 | Nomana Abid | 01-283212-001 | Immiscible fluids flow through curved geometries or curved channel | Immiscible fluids, curved pipe, Fluid-fluid interface, Viscosity ratio, Density ratio | Dr. Jafer Hasnain |

| 20 | Zulfiqar Ali | 01-283232-001 | Blade Coating Phenomena of Lubricated Non-Newtonian Polymers | Blade coating Non-Newtonian polymers Upper convected Jeffery's fluid Coating thickness Material parameters | Dr. Jafer Hasnain |

## Item no. 0102: Relevance of PhD Supervisors - CS Dept BUKC

The agenda was presented by HoD CS and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | Ms. Fasiha Ikram | 02-284171-001 | A Hybrid Recommendation System Considering Visual-Textual Information using Machine Learning Techniques | Machine Learning, Data Science, Object Detection, Recommendation Systems, Natural Language Processing | Dr. Humera Farooq |
| 2 | Ms. Syeda Nazia Ashraf | 02-284182-001 | Novel CNN Based Technique for Reliable Detection and Classification of Pneumonia | Medical Imaging, Adversarial Attacks, Adversarial Defense, Deep Learning, Computer Vision | Dr. Raheel Siddique |
| 3 | Ms. Darakhshan Syed | 02-284212-001 | An efficient hybrid load balancing mechanism for Cloud Computing by using metaheuristic algorithms | Cloud Computing, Artificial Intelligence | Dr. Ghulam Muhammad |
| 4 | Mr. Muhammad Shahzad | 02-284212-002 | Blockchain-Based Network Security Mechanism for Software-Defined Networking | Communication Networking, Network Security | Dr. Syed Safdar Ali Rizvi |

| 5 | Mr. Javed Ahmed | 02-284222-001 | An Optimizing Containerized Workloads. A Novel Deep Reinforcement Learning Approach for Resource Management in Cloud Computing | Cloud Computing, IaaS, Containerization | Dr. Ghulam Muhammad |
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## Item no. 0103: Relevance of PhD Supervisors - CE Dept BUIC H-11

The agenda was presented by HoD CE and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | AMNA WAHEED AWAN | 01-281171-005 | Analysis of Physiological Signals for Emotion Charting | Artificial Intelligence, Deep Learning, Computer Vision, Real-time applications, Machine Learning | Prof. Dr. Shehzad Khalid |
| 2 | Waqar Khalid | 01-281202-001 | A novel deep learning framework for classification of wheat crop's diseases and pests for precision agriculture | Artificial Intelligence, Deep Learning, Computer Vision, Real-time applications, Machine Learning | Prof. Dr. Shehzad Khalid |

## Item no. 0104: Relevance of PhD Supervisors - SE Dept BUIC-H11

The agenda was presented by HoD SE and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | Shah Hussain | 01-281232-001 | Modal-Based penetration framework for edge computing devices | Software Engineering, Cyber Security and Deep learning | Prof. Dr. Tamim A Khan |

| 2 | Sidra Siddiqui | 01-281202-002 | A Novel Obfulsifier Framework to Detect, Test and Effectively Prevent Intrusion of Obfuscated Android Malwares | Information Security, Deep learning, Obfuscation techniques | Prof. Dr. Tamim A Khan |

## Item no. 0105: Relevance of PhD Supervisors - SE Dept BUKC

The agenda was presented by HoD SE and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | Proposed PhD Supervisor |
|---|---|---|---|---|---|
| 1 | MAHAWISH | 02-200182-006 | Self-Healing and Light-Weight Intrusion Detection | Internet of Things, Cybersecurity, Connected Vehicles, Intelligent Security Solutions | Dr. Osama Rahman |
| 2 | AYESHA ARSHAD | 02-281222-001 | Secure Software Development for mitigating Cyber-attacks over the IoT Ecosystem | Internet of Things, Cybersecurity, Connected Vehicles, Intelligent Security Solutions | Dr. Osama Rahman |
| 3 | BUSHRA FAZAL KHAN | 02-200181-009 | An agile approach for inquiry-based learning in ubiquitous environment | Technology Enhanced Learning, Agile Software Development, Inquiry-Based Learning, Ubiquitous Learning, Learners' behaviors | Dr Sohaib Ahmed |
| 4 | REEMA QAISER KHAN | 02-281232-001 | Detection of breast cancer using histopathological image classification with deep learning technique | Medical Image analysis, Digital Image processing, computer vision, machine learning | Dr. Hina Shakir |

## Item no. 0106: Relevance of PhD Supervisors - EE Dept BUIC-H11

The agenda was presented by HoD EE and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|--------|---------------------|-----------|---------------|-----------------------------------|----------------|
| 1 | Adnan Yaqoob Salik | 01-281192-001 | Efficient AI Architecture for Real-Time Applications | Artificial Intelligence, Deep Learning, Computer Vision, Real-time applications, Machine Learning | Prof. Dr. Shehzad Khalid |
| 2 | Muhammad Hasan Danish Khan | 01-281172-001 | Blockchain Enabled Secure Transaction System for Decentralized Energy Trading in Microgrids | Blockchain, Network Management, Smart grid, Energy Efficiency, Cyber Security | Dr. Junaid Imtiaz |
| 3 | Maryam Iqbal Shah | 01-281171-003 | Modeling and Control Synthesis of Robotic Digits for Movement Coordination in an Anthropomorphic and Impaired Hand | Biomechanics Modeling Optimal and Robust Control Systems Applications in Control Rehabilitation Robotics | Dr Asif Mahmood Mughal |
| 4 | Muhammad Yaseen | 01-281201-001 | Resilience Constrained Energy Management System for Microgrids with High DG Penetration | Resilience, EMS, Microgrids, Distributed Generation, Artificial Intelligence | Dr Asad Waqar |
| 5 | MUHAMMAD JUNAID | 01-281222-001 | Reinforcement Learning-Based Optimization of Distribution Networks Integrating Distributed Generation and Electric Vehicles | Reinforcement learning, Distributed Generators, Distribution network, Optimization, Electric Vehicles (EVs) | Dr Asad Waqar |
| 6 | Faheem Haroon | 01-281172-005 | An improved Sliding Mode Control for Voltage Source Inverters using Optimal Surface Selection Mechanism | Distributed Generation. Micro Grid. Sliding Mode Control. Stability. Electrical Vehicles. | Prof. Dr. Asad Waqar |
| 7 | Syed Umaid Ali | 01-281172-006 | Control Of Hybrid Ac-Dc Microgrid Using Variable Weighing Factor Algorithm | Model Predictive Control (MPC), Energy management system (EMS), Hybrid micro | Prof. Dr. Asad Waqar |

| | | | | grid, Hybrid Wind PV Battery System, Distributed Energy Resources (DER), Battery Energy Storage System (BESS), Bidirectional interleaving converter (BIC). | |
|---|---|---|---|---|---|
| 8 | ZIA UR REHMAN | 01-281222-002 | Reliability-Aware Design of Power Electronics Converters for EV Applications. | Power Electronics, EV Applications, Distribution System, V2G, AI applications. | Prof. Dr. Asad Waqar |
| 9 | Abdul Rehman | 01-281172-004 | Spectrum Allocation Techniques for 6th Generation Defense and High Data Rate Wi-Fi Networks | IoT, 5G/6G Wireless Networks, Channel Access Control, Resource Allocation, Mac Layer Access | Prof. Dr. Faisal Bashir Hussain |
| 10 | Muhammad Waqas | 01-281181-001 | Energy and Spectral Efficient Resource Allocation for Heterogenous Networks | IoT, 5G/6G Wireless Networks, Channel Access Control, Resource Allocation, Mac Layer Access | Dr. Saleem Aslam |

## Item no. 0107: Relevance of PhD Supervisors - EE Dept BUKC

The agenda was presented by HoD EE and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | Ashee Ahmed Tanveer | 02-281171-001 | Millimeter Wave for Vehicular Communication Using Efficient Coding Technique | Millimeter-wave, VANET, BCH coding | Prof. Dr. Haroon Rasheed |

| 2 | Rana Saeed Ahmed | 02-281181-001 | Modelling and Control of Distribution Generation Units of a Microgrid | Power Systems Analysis, Microgrid, MPPT | Prof. Dr. Haroon Rasheed |
|---|---|---|---|---|---|
| 3 | Fazal Muhammad | 02-281191-001 | Design Of Modular Multilevel Converter for Enhancement of Electrical Energy Efficiency Of Smart Grid | Power System Analysis, Modular Multilevel Converter, Voltage source converter, Power losses | Prof. Dr. Haroon Rasheed |
| 4 | M. Faisal Siddiqui | 02-281172-002 | Design An Ultra Low Power Bluetooth Low Energy Receiver Fron End | BLE, Phase Noise, Quality Factor, CMOS, VCO | Dr. Mukesh Kumar Maheshwari |
| 5 | M. Waleed Raza | 02-281191-002 | Frequency And Voltage Control of Offshore Grid Connected With Hybrid Csc/Vsc Hvdc System | Power System Analysis, VSC, Offsore Grid, HVDC | Dr. Muhammad Raza |
| 6 | M. Ovais Akhter | 02-281192-001 | ULP Power Amplifier using 65 nm CMOS Technology | CMOS; Power Amplifier; Gain, ultra-low power, IoTs, Power added efficiency, Class-F, envelope tracking, insertion loss, 65 nm CMOS technology | Dr. Aurangzeb Rashid Masud |

## Item no. 0108: Relevance of PhD Supervisors - E&ES Dept BUIC-H11

The agenda was presented by HoD E&ES and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
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| 1 | Muhammad Nofal Munir | 01-286172-001 | Reservoir Diagenesis and Quality prediction of Late Cretaceous Pab Sandstones Lower Indus Basin, Pakistan | Reservoir Diagenesis and Quality prediction of Late Cretaceous Pab Sandstones Lower Indus Basin, Pakistan | Dr Muhammad Zafar |
|---|---|---|---|---|---|
| 2 | Aneela Khan | 01-286172-002 | Hydroclimatological Response of Selected Sub-Basins of the Upper Indus Basin for Mid and End Century | Climate change, Snow cover area, Cryosphere, Hydrologic regime, MODIS | Dr. Humera Farah |
| 3 | Furqan Aftab | 01-286172-003 | Reservoir Characterization of Sands of Sembar Formation, Lower Indus Basin, Pakistan | Sembar Formation Sands, Sandstone Diagenesis, Sandstone Reservoir Quality, XRD, Petrography, SEM, XRF, ICP-MS, Rock Physics Analysis, Artificial Neural Network, Fluid Inclusion Studies. | Dr. Muhammad Zafar |
| 4 | Adil Naseer | 01-286172-004 | Assessment of seismic risks and potential damage to infrastructure in Gilgit and surrounding areas, Pakistan | Seismic risk, Earthquake, Tectonics, Moho discontinuity; Teleseismic | Prof. Dr. TahseenUllah Khan |
| 5 | Adeeb Ahmed | 01-286172-005 | Unconventional Resource Potential Evaluation of Shale Facies of Sembar Formation, Lower Indus Basin, Pakistan | Organic geochemistry; Paleoenvironmental conditions. Mineralogy and porosity evaluation; Shale gas. Shale oil | Prof. Dr. TahseenUllah Khan |
| 6 | Muhammad Asif Khan | 01-286172-007 | An Integrated Reservoir Characterization Study of The Cretaceous Lower Goru Tight Sands, Middle Indus Basin, Pakistan | Petrophysics, Reservoir modeling, Rock physics, Seismic inversion, Tight gas | Prof. Dr. TahseenUllah Khan |
| 7 | Zainab Wahab | 01-286172-008 | Effect of urbanization and climate change on metropolitan environment in Islamabad, Pakistan | Demographic growth, Remote sensing, Sustainable Development Goals (SDGs), Urban policies, Urbanization | Dr. Humera Farah |

| 8 | Waqar Ali | 01-286172-009 | Spatio-temporal change analysis of climate induced hydrological extreme events in the Swat River Basin, Khyber Pakhtunkhwa, Pakistan. | Water discharge, Precipitation, Temperature, Downscaling, Climate change, SDSM trend | Dr Asma Jamil |
|---|---|---|---|---|---|
| 9 | Sumaira Akram | 01-286182-001 | Biomonitoring Of Hazardous Substances in Workers Associated with Electronic Waste Processing Facility in Pakistan | Solid waste, Heavy metals, Organic contaminants, Health risk assessment | Dr Said Akbar |
| 10 | Hina Wajid Satti | 01-286182-002 | Estimation Of Reservoir Properties Using Statistical Rock Physics and Seismic Inversion Techniques for Hydrocarbon Exploration, Manzalai Area, Kohat Plateau, Pakistan | Reservoir properties, Hydrocarbon exploration, Rock physics, Seismic inversion, Manzali area | Prof. Dr. TahseenUllah Khan |
| 11 | Abdul Shakoor | 01-286182-003 | Estimation and Analysis of Atmospheric Emissions from Ship Breaking Industry in Gadani Ship Breaking | Particulate matter, Heavy metals, Atmospheric Emissions | Dr Said Akbar |
| 12 | Waqar Ahmad | 01-286192-001 | Integrated Diagenetic Modeling and Its Impact on The Reservoir Quality of Chiltan Limestone and Samana Suk Formation, Foreland Sedimentary Fold-Belt, Pakistan | Diagenetic modeling, Reservoir quality, Chiltan limestone, Samana Suk Formation, foreland sedimentary fold belt Pakistan | Dr Muhammad Zafar |
| 13 | Umair Rashad | 01-286192-003 | Impact of Seasonal and Spatial Variation of Inorganic Pollutants in Air and Vegetation of Rawalpindi | Bio monitoring, Particulate matter, Air quality, Metal estimation | Dr Aansa Rukya Saleem |

| 14 | Qadeer Ahmad | 01-286192-004 | Hydrocarbon Exploration Risk Mitigation Through Mapping Petroleum Migration Pathways Using Seismic and Geochemistry Data, Punjab Platform, Pakistan | Integrated assessment, organic richness, source maturity, enhanced hydrocarbon exploration, seismic inversion, basin modeling | Dr Muhammad Iqbal Hajana |
|---|---|---|---|---|---|
| 15 | Syed Maqsood Ali Gilani | 01-286202-001 | A sequence stratigraphic model for Lower Cretaceous reservoir sands distribution in Tando Allah Yar Area, Lower Indus Basin, Pakistan | Environment of Deposition, Lower Goru, Extensional Tectonics, Sedimentology & Stratigraphy, Facies Analysis. | Dr Muhammad Iqbal Hajana |
| 16 | Umar Manzoor | 01-286202-002 | Seismic driven thin reservoir facie classification using advanced machine learning algorithms: A research on Lower Ranikot Sandstone Reservoir, Kirthar Foldbelt, Lower Indus Basin, Pakistan | Machine learning, Continuous wavelet transform, Conventional neural network, Reservoir Characterization, Thin-heterogeneous sand, Pore pressure | Dr Muhsan Ehsan |
| 17 | Kamran Younas | 01-286202-004 | Management of Noxious Weed (Parthenium Hysterophorus) Through Biochar and Remediation of Selected Organic and Inorganic Pollutants in Synthetic and Industrial Effluents | Environmental pollutants; treatment; Remediation; Wastewater | Dr Asma Jamil |
| 18 | Haider Shabbir | 01-286202-001 | Landslide risk assessment for Jhelum Basin, Pakistan using a global hydro-climatic dataset | GIS, Remote Sensing, Hazard Assessment, Hydrogeology, groundwater,SBAS-InSAR | Dr Muhsan Ehsan |
| 19 | Rana Faisal Shahzad | 01-286202-002 | Enhancing Reservoir Characterization Through a Machine Learning Approach Utilizing Sequence Stratigraphy Model for | Reservoir Characterization, Machine Learning, Sequence Stratigraphy, Seismic | Dr Muhammad Iqbal Hajana |

| | | | Cretaceous Sands, Lower Indus Basin, Pakistan | Inversion, Lower Goru Fairway | |
|---|---|---|---|---|---|
| 20 | Saima Nazir | 01-286202-003 | Assessment of Particulate Matter, Gaseous and Volatile Organic Compound Emissions in Selected cities of Pakistan | Particulate matter, Heavy metals, Organic contaminants, Health risk assessment | Dr Said Akbar Khan |
| 21 | Aisha Khaled Chaudhri | 01-286222-001 | Mitigating Soil Pollution: Harnessing the Synergistic Potential of Coconut Biochar Nanocomposites with Zinc and Plant Growth-Promoting Rhizobacteria (PGPR) for Phthalate Remediation | Biocomposite, Adsorption, Phathalate, Bioremediation, Biochar | Dr Aansa Rukya Saleem |
| 22 | Kamran Siddique | 01-286222-002 | Integrated application of constructed floating wetland system for the treatment of textile-based wastewater augmented with bacteria | Assisted phytoremediation, Constructed wetland, Floating treatment, Anaerobic digestion, Azo dyes | Dr Aansa Rukya Saleem |
| 23 | Shahzad Naveed | 01-286222-003 | Quantification of Greenhouse Gas Emissions and Mitigation Potential of Slow-Release Non-Protein Nitrogen for Dairy Livestock in Selected Sites of Punjab, Pakistan. | Organic contaminants (Green House Gas), Heavy metals, Atmospheric pollutions, Health risk assessment | Dr Said Akbar Khan |
| 24 | Zohaib Naseer | 01-286222-004 | Evaluation Of Structural Driven Geothermal Systems: A Comprehensive Geophysical Analysis of Thar Platform, Southern Indus Basin, Pakistan | Machine learning, Geothermal Systems, Petrophysical Analysis, Reservoir Characterization, Structural Interpretation, Facies Modeling | Dr Muhsan Ehsan |

## Item no. 0109: Relevance of PhD Supervisors - E&ES Dept BUKC

The agenda was presented by HoD E&ES and the RAC finds the following PhD Faculty Members relevant to the research domain/topic of their respective PhD Scholars.

| S. No. | Name of PhD Scholar | Enrolment | Title of Work | Domain/Keywords (Maximum 5 words) | PhD Supervisor |
|---|---|---|---|---|---|
| 1 | Arjan Das | 02-282171-001 | SPATIO-TEMPORAL STUDIES OF AIR POLLUTANTS AND THEIR IMPACTS ON KARACHI REGION, PAKISTAN | Air Quality, Spatio-Temporal, Pollutants, Climate | Dr. Yasmin Nergis |

## Item no. 0110: Relevance of Faculty members for the proposed MS Artificial Intelligence Program – CS Dept BUIC H-11

The agenda was presented by the HoD CS and the RAC finds the following PhD Faculty Members relevant to the proposed MS Artificial Intelligence Program by the CS Dept BUIC H-11.

| Sr No | Name | Designation | Research Domain |
|---|---|---|---|
| 1 | Dr Shehzad Khalid | Snr Professor | Machine Learning, Computer vision, Signal Processing, Natural Language Processing, Intelligent Medical Diagnostics |
| 2 | Dr Imran Fareed Nizami | Professor | Medical imaging using AI, Image Quality Assessment using Machine Learning techniques, EEG signal analysis and applications based on AI. |
| 3 | Dr Sumaira Kausar | Snr Assoc Professor | Machine learning, Deep Learning, Pattern recognition, Image Analysis |
| 4 | Dr Sohail Akhtar | Assistant Professor | Machine Learning, Natural Language Processing, Opinion Mining, Sentiment Analysis, Computational Linguistics |

**Closing of the Meeting**

There being no further points, the Chair brought the meeting to a close, thanking the participants for their wholehearted participation especially the external Members of the Committee.

Prof Dr Faisal Bashir Hussain
Dean Faculty of Engineering & Sciences
Bahria University