



FRC Meeting Minutes

17th FRC, Faculty of Engineering Sciences
October 05, 2022

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1. The 17th meeting of the Faculty Research Committee of the Faculty of Engineering Sciences (FRC-ES) was held on October 5, 2022, at 0930. The meeting was held online through MS Teams.

Attendees

2. The meeting was attended by the following:
 - i. Dr. Atif Raza Jafri Dean ES, Chair (FRC-ES)
 - ii. Dr. Sohaib Ahmed Principal BSEAS, BUKC
 - iii. Dr. Shahzad Hassan HoD CE Dept., IC
 - iv. Dr. Arif ur Rahman HoD CS Dept., IC
 - v. Dr. Syed Safdar Ali HoD CS Dept., KC
 - vi. Dr. Khawaja Qasim Maqbool HoD CS Dept., LC
 - vii. Dr. Junaid Imtiaz HoD, EE Dept., IC
 - viii. Dr. Mukesh Kumar Maheshwari HoD EE Dept., KC
 - ix. Dr. Said Akbar Khan HoD EES Dept., IC
 - x. Dr. Salma Hamza HoD EES Dept., KC
 - xi. Dr. Awais Majeed HoD SE Dept., IC
 - xii. Dr. Osama Rehman HoD SE Dept., KC
 - xiii. Dr. Muhammad Ramzan Snr. Professor CS Dept., IC
 - xiv. Dr. Imran Siddiqi Snr. Professor CS Dept., IC (Secretary FRC-ES)

Opening Remarks

3. The meeting started with the recitation from the Holy Quran. Chair FRC welcomed the participants at the three campuses.

Agenda

4. The agenda items prepared by the respective PGP Coordinators/HoDs were shared with all the members of the FRC prior to the meeting.
5. The agenda items presented, and the decisions taken are as follows.

Agenda Items

Item 17.1 Appointment of Examiners for MS Thesis Defense

Discussion

6. HoDs from the respective departments of Faculty of Engineering Sciences presented the cases of MS students who have completed their research work and submitted their theses for evaluation. FRC was requested to appoint internal and external examiners for the MS thesis defense of the presented candidates.

Decision

7. On recommendation of the respective DRCs, FRC appointed panels of examiners for the final MS thesis defense of the presented candidates. Details of the candidates and the approved examiners are listed in **Annex-I**.

Action by: Concerned HoDs

Item 17.2 Appointment of Examiners for PhD Proposal Defense

Discussion

8. Candidates listed in **Annex II** and enrolled in PhD programs have cleared their comprehensive exam and are ready to appear for the PhD proposal defense. FRC was requested to appoint appropriate panels of examiners to conduct the PhD proposal defense of the candidates.

Decision

9. On recommendations of the respective DRCs, FRC appointed panels of examiners to conduct the PhD Proposal Defense of the presented candidates. The approved examination panels are listed in **Annex II**. Departments were instructed to ensure that the proposal defense is carried out within the time frame in accordance with the PhD Rules.

Action by: Concerned HoDs

Item 17.3 Inclusion of Experts in the list of Local External Examiners

Discussion

10. Profiles of active researchers in various peer universities/organizations were presented to the FRC for inclusion in the pool of local external examiners to evaluate MS/PhD theses.

Decision

11. FRC approved the examiners listed in **Annex III** for inclusion in the pool of local external examiners.

Action by: Concerned HoDs

Item 17.4 Inclusion of Experts in the List of Foreign Evaluators

Discussion

12. Profiles of various international researchers were presented for recommendation to the HERC to include them in the pool of foreign evaluators to review PhD theses.

Decision

13. FRC approved the profiles of the presented researchers for recommendation to the HERC to include them in the pool of foreign evaluators. Profile summaries of the experts are presented in **Annex IV**.

Action by: Concerned HoDs

Item 17.5 Recommendation of Foreign Evaluators for PhD Candidates

Discussion

14. Cases of PhD scholars listed in **Annex-V** were presented and FRC was requested to provide recommendation of foreign evaluators for subsequent evaluation of the thesis.

Decision

15. On recommendation of the respective DRCs, FRC provided its recommendation for the foreign evaluation of the PhD theses of the presented candidates. Details of candidates and the recommended evaluators are listed in **Annex-V**.

Action by: Concerned HoDs

Item 17.6 Appointment of Supervisors and Advisory Committees of PhD Scholars

Discussion

16. Cases of PhD scholars in various departments of ES were presented for appointment of supervisors and advisory committees. In some cases, the advisory committees were reconstituted due to non-availability of the members in the committee.

Decision

17. On recommendations of the respective DRCs, FRC approved the appointment of supervisors and advisory committees of the presented candidates. The details of candidates and appointment are listed in **Annex-VI**.

Action by: Concerned HoDs

Item 17.7 Recommendation of Examiners for PhD Final Thesis Defense (FTD)

Discussion

18. Cases of PhD scholars listed in **Annex-VII** were presented and FRC was requested to provide recommendation of examiners for the final thesis defense of the candidates.

Decision

19. On recommendation of the respective DRCs, FRC provided its recommendation of the FTD examiners for PhD theses of the presented candidates. Details of candidates and the recommended examiners are listed in **Annex-VII**.

Action by: Concerned HoDs

Item 17.8 Cancellation of the Candidacy of MS Students

Discussion

20. HoD E&ES, BUIC, presented the cases of the following MS students whose supervisors have submitted the third unsatisfactory progress report.
- Sidra Tul Muntaha (01-262202-024), MS (ES)
 - Kalil Ur Rahman (01-262201-014), MS (Geology)
 - Niaz Ali (01-262201-026), MS (Geophysics)
21. The supervisors have mentioned that the students are not complying and remained absent without showing any progress at all.

Decision

22. On recommendation of the DRC and in accordance with MS/MPhil Rules, FRC approved the cancellation of candidacy of MS students Sidra Tul Muntaha (01-262202-024), Kalil Ur Rahman (01-262201-014) and Niaz Ali (01-262201-026). Subsequent processing is to be carried out by the department in accordance with the MS/MPhil Rules.

Action by: HoD E&ES, BUIC

Item 17.9 Cancellation of the Candidacy of PhD Scholars

Discussion

23. HoD E&ES, BUIC, presented the case of Ms. Asam Khalil (01-286192-002) enrolled in the PhD (ES) program under the supervision of Dr. Asma Jamil. The research supervisor of the PhD scholar has submitted three unsatisfactory progress reports to the department. The case was forwarded to FRC to recommend the cancellation of candidacy of the scholar.
24. HoD CE, BUIC presented the case of Mr. Shehzad Ahmad (01-281162-003) who was enrolled in the PhD (CE) program in Fall 2016. The house was informed that the performance of the candidate

has not been satisfactory in the research phase and the supervisor has submitted three unsatisfactory progress reports. FRC was requested to recommend the cancelation of the candidacy of the scholar.

Decision

25. FRC recommended the cancelation of candidacy of PhD scholars Ms. Asam Khalil (01-286192-002) and Mr. Shehzad Ahmad (01-281162-003). Concerned departments to process the cases in accordance with the PhD rules.

Action by: Concerned HoDs

Item 17.10 Extension in Time Bar of PhD Scholars

Discussion

26. Ms. Madiha Khalid (01-281162-002), enrolled in the PhD EE program at BUIC. With the end of Spring 2022 semester, her 6 years of PhD will be completed. She has requested for an extension of one year in the program duration. The ITD of the scholar was held on 15 September 2022. FRC was requested to grant one year extension to the candidate.
27. Mr. Khurram Mustafa Abbasi (01-281152-002), PhD SE scholar at BUIC was given 1 year time-bar extension by the FRC in its 14th meeting. The candidate has now completed 7 years of program duration. The thesis of the candidate is submitted to the PGP Dte. for foreign evaluation. FRC was requested to recommend one year further extension to the honorable Rector.
28. HoD SE, BUIC, presented the case of PhD (SE) scholar Mr. Farrukh Shahzad Ahmed (01-281162-001) who has completed 6 years of program. FRC was informed that the scholar has passed his ITD held on 14th September, 2022. The candidate has also submitted the compliance report after incorporating all the changes recommended by the examiners and the thesis is ready for the foreign evaluation as well. The scholar has applied for time-bar extension.
29. Mr. Muhammad Raiees Amjad (01-286162-001), enrolled in the PhD Geology program at BUIC, has completed 6 years of program. The candidate has cleared the ITD and has submitted a request for an extension of one year.
30. Ms. Joddatt Fatima (01-284152-001) is enrolled in PhD CS program under the supervision of Dr. Amina Jameel. The student has cleared the ITD and her thesis is in foreign evaluation phase. The candidate has completed seven years of program and has requested for one year further extension.

31. Ms. Zainab Yousaf (01-284152-002) is enrolled in the PhD CS program at BUIC and her thesis is currently with the PG Directorate in the process of Final Thesis Defense. She has completed seven years of program duration and has requested a further extension of one year so that the remaining formalities can be completed.
32. Ms. Naureen Hassan (02-284162-001), enrolled in the PhD CS program at BUKC has completed six years of PhD studies. The candidate has submitted the thesis for ITD and completed the publication requirement by publishing 02 Impact Factor journal papers. The candidate has requested an extension of one year from the FRC.
33. Mr. Adnan Abdullah (02-284162-002) has completed six years of PhD studies. He is in process of writing the thesis and has yet to complete the publication requirements. The house was also informed that the supervisor has submitted two unsatisfactory progress reports in the last year. The candidate has requested an extension of one year in the program.
34. HoD EES, BUKC, presented the case of PhD (ES) scholar Mr. Jawwad Abdullah Butt (02-283162-001) who has completed six years of program. The candidate has submitted his thesis draft to the department and has also submitted a research paper in an X category impact factor journal. FRC was requested to grant an extension of one year to the candidate.

Decision

35. Decisions on the extension cases of presented PhD scholars are summarized in **Annex-VIII**.

Action by: Concerned HoDs

Item 17.11 Change of Supervisor/Co-Supervisor: PhD Scholars

Discussion

36. HoD CS, BUIC, presented the case of Mr. Ali Raza (01-283202-002) who is enrolled in PhD Mathematics program under the supervision of Dr. Rizwan ul Haq. Dr. Rizwan ul Haq has resigned from the university and therefore he cannot be the principal supervisor. Dr. Jaffer Hasnain, FM in the Dept. of CS, BUIC, has accepted to supervise the student with co-supervision of Dr. Rizwan ul Haq.
37. Mr. Nasir Iqbal (01-284212-001) is enrolled in the PhD CS program under the supervision of Dr. Muhammad Najam ul Islam. The supervisor has recently resigned from the University. Dr. Faisal Bashir, Snr. Professor in the Dept. of CS, is willing to take the student under his supervision.

Decision

38. FRC approved the appointment of Dr. Jaffer Hasnain as the Principal and Dr. Rizwan ul Haq as the co-supervisor of the PhD Scholar Mr. Ali Raza (01-283202-002). Furthermore, Dr. Faisal Bashir was appointed as the Principal supervisor of PhD scholar Mr. Nasir Iqbal (01-284212-001).

Item 17.12 Change in the Title of PhD Thesis – PhD Scholars

Discussion

39. Concerned HoDs presented the cases of PhD scholars who appeared for the PhD Proposal Defense and the examiners suggested changes in their research titles. Details of students, existing and suggested titles are summarized in the following.

SNo.	Name (Enrolment #)	Program	Supervisor (Co-Supervisor)	Title of Thesis
1	Farrukh Shahzad Ahmed 01-281162-001	PhD (SE)	Dr. Tamim A Khan (Dr. Awais Majeed)	Existing: Applications of Business-Centric Regression Testing for Business Software Applications Suggested: Applications of Value-Centric Regression Testing for Software Applications
2	Muhammad Yaseen 01-281201-001	PhD (EE)	Dr. Asad Waqar (Dr. Imran Fareed Nizami)	Existing: Energy Management for Resilient Microgrids with High Penetration of Distributed Generation Suggested: Resilience Constrained Energy Management System for Microgrids with High DG Penetration
3	Abeer Iftikhar 01-284202-001	PhD (CS)	Dr. Kashif Naseer	Existing: Security Provision By Using Detection and Prevention Methods to Ensure Trust and Security in Smart Cities Network. Suggested: Security Provision by Using Detection and Prevention Methods to Ensure Trust in Edge Based Smart City Networks.
4	Amir Ali 01-284202-002	PhD (CS)	Dr. Sumaira Kausar	Existing: AI based Neuropsychological Assessment and Immersive Environment Based Intervention for Dyslexic Children Suggested: Neuropsychological Assessment using intelligent Techniques for Dyslexic Children
5.	Ms. Sameena Javaid 02-284172-002	PhD (CS)	Dr. Syed Safdar Ali Rizvi	Existing: Dynamic Gesture Recognition Using IoT and Depth Data Suggested: Dynamic Sign Language Recognition using Deep Learning

Decision

40. FRC approved the change of research title of the presented scholars. The approved titles and details of students are listed in the following.

SNo.	Name (Enrolment #)	Program	Supervisor (Co-Supervisor)	Title of Thesis
1	Farrukh Shahzad Ahmed 01-281162-001	PhD (SE)	Dr. Tamim A Khan (Dr. Awais Majeed)	Applications of Value-Centric Regression Testing for Software Applications
2	Muhammad Yaseen 01-281201-001	PhD (EE)	Dr. Asad Waqar (Dr. Imran Fareed Nizami)	Resilience Constrained Energy Management System for Microgrids with High DG Penetration
3	Abeer Iftikhar 01-284202-001	PhD (CS)	Dr. Kashif Naseer	Security Provision by Using Detection and Prevention Methods to Ensure Trust in Edge Based Smart City Networks.
4	Amir Ali 01-284202-002	PhD (CS)	Dr. Sumaira Kausar	Neuropsychological Assessment using intelligent Techniques for Dyslexic Children
5.	Ms. Sameena Javaid 02-284172-002	PhD (CS)	Dr. Syed Safdar Ali Rizvi	Dynamic Sign Language Recognition using Deep Learning

Action by: None

Item 17.13 Inclusion of Change in internal Examiners – MS Thesis Defense

Discussion

41. The examiners panel of MS (SE) student Mr. Shahid Muhammad (02-241192-020) was appointed in the 13th meeting of FRC, where Dr. M. Muzammil was appointed as the internal examiner. However, Dr. M. Muzammil resigned from BU and the case of change in internal examiner was processed on file (reference file number: BUKC/SE/2022/001) to ensure timely evaluation of the thesis. The MS Thesis examination of student Mr. Muhammad Shahid has already been completed.

Decision

42. FRC ratified the change of examiners for the MS thesis defense examiners of the candidates listed in **Annex-IX**.

Action by: None

Item 17.14 Ratification of Change of Supervisor – MS Thesis Student, EE Dept. BUIC

Discussion

43. HoD EE, IC presented the case of MS student Muhammad Aleem uz Zaman (01-244191-021) who was working under the supervision of Dr. Asim Ali Shah. Due to resignation of the supervisor from BU, approval for the appointment of Dr. Imtiaz Alam as principal supervisor of the candidate was taken on file (Case No. BUIC/EE/2021/193) from Dean (ES). FRC was requested to ratify the appointment.

Decision

44. FRC ratified the appointment of Dr. Imtiaz Alam as the principal supervisor of MS student Muhammad Aleem uz Zaman (01-244191-021).

Action by: None

Item 17.15 Ratification of Appointment/Change of Examiners – MS Thesis Students

Discussion

45. HoD EES, BUIC, presented the case of Ms. Tooba Akbar (01-262201-010) who is enrolled in the MS (ES) program and carried out her research under the supervision of Dr. Asma Jamil. The candidate submitted her thesis for final defense on 29th March 2022 but the external evaluation could not be completed due to no response from the approved external examiner Dr. Tariq Sultan. Approval of a different external examiner Prof. Dr. Shaukat Iqbal was taken on file from Dean (ES) vide case file number BUIC/E&ES/2022/312. FRC was requested to ratify the appointment.
46. Case of MS Geophysics student Ms. Summan Saeed (01-262192-029) was presented whose thesis was approved by the internal but not approved by the external examiner. In accordance with the MS/MPhil Rules, the thesis was sent to another external examiner (Dr. Shazia Asim) whose approval was taken from Dean (ES) on file vide Case File Number: BUIC/E&ES/2022/295. FRC was requested to ratify the appointment.
47. HoD CS, IC presented the cases of MS (IS) student, Muhammad Azam (01-247202-010). The approval of internal and external examiners for the final defense of the candidate was taken on file from Dean (ES). FRC was requested to ratify the appointment of examiners.
48. The panel of examiners of MS (SE) student Mr. Shahid Muhammad (02-241192-020) was appointed in the 13th meeting of FRC, where Dr. M. Muzammil was appointed as the internal examiner. However, Dr. M. Muzammil resigned from BU and the case of change in internal examiner was processed on file (reference file number: BUKC/SE/2022/001) to ensure timely evaluation of the thesis. FRC was requested to ratify the change of internal examiner.

Decision

49. FRC ratified the following appointments of internal/external examiners for the presented MS students.

S No.	Name (Enrolment #)	Thesis Title	Supervisor	Internal Examiner	External Examiner
1	Tooba Akbar 01-262201-010	Arsenic and Cadmium Contamination of Groundwater in Selected Areas of Dg Khan Punjab	Dr. Asma Jamil	-	Dr. Shaukat Iqbal
2	Summan Saeed 01-262192-029	Geo-Statistics Based Reservoir Modelling for Hydrocarbon Resource Potential in Zamzama Block, Se Pakistan	Dr. M. Fahad Mahmood	-	Dr. Shazia Asim
3	Muhammad Azam 01-247202-010	Mapping Approach for True Internet Protocol Geo-location Information by using Active and Passive Methods	Dr. Kashif Naseer	Dr. Moazzam Ali	Dr. Muazzam Khan Khattak
4.	Shahid Muhammad (02-241192-020)	Scalability Analysis of Block chain based Systems	Dr. Osama Rehman	Dr. Sohaib Ahmed	-

Action by: None

Item 17.16 Appointment of Examiners for PhD Comprehensive Exam

Discussion

50. Cases of PhD scholars (listed in Annex-IX) were presented by the respective HoDs. These students have completed their course work and need to appear for the PhD comprehensive exam. FRC was requested to approve relevant subjects and appoint appropriate examiners for the PhD Comprehensive Exams.

Decision

51. On recommendation of the DRC, FRC approved the subjects and examiners for the PhD Comprehensive Exam of the presented candidates. Details of candidates and approved examiners are listed in **Annex-IX**.

Action by: Concerned HoDs

Closing Remarks

Chair FRC-ES summarised the key decisions. In his closing remarks, Chair – FRC thanked the members/participants for contributing to the FRC-ES meeting.

Dr. Atif Raza Jaffri

Chair – FRC, Dean ES

November 14, 2022

Annex-I: Appointment of Examiners for MS Thesis Defense

Appointment of Examiners for MS Thesis Defense CS Department, Islamabad Campus

S No.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Anam Bibi 01-243202-004	Automated Insect Detection for Crop Health Monitoring	MS (CS)	Dr. Momina Moetesum (Dr. Imran Ahmed Siddiqi)	Dr. Arif Ur Rehman	Dr. Tehmina Amjad
2	Asia Kanwal 01-243202-005	Proxy Mobile IP Using QUIC	MS (CS)	Dr. Moneeb Gohar	Dr. Faisal Bashir	Dr. Muazzam A. Khan Khattak
3	Awais Nawaz 01-243202-006	Query Based Document Summmarization	MS (CS)	Dr. Momina Moetesum	Dr. Sumaira Kausar	Dr. Tehmina Amjad
4	Muhammad Tajmal 01-243202-015	Post-Mortem Iris Recognition	MS (CS)	Dr. Samabia Tehsin	Dr. Imran Ahmed Siddiqi	Dr. Fahad Tahir
5	Muhammad Tayyab Rafaqat 01-243202-016	An Energy Efficient Clustering and Optimization Method for Data Aggregation in Wireless Sensor Networks	MS (CS)	Dr. Moazam Ali (Dr. Kashif Naseer)	Dr. Moneeb Gohar	Dr. Humaira Ashraf
6	Nazish Saeed 01-243202-018	Realistic Face Image Generation from Facial Outline Sketches	MS (CS)	Dr. Sumaira Kausar	Dr. Imran Ahmed Siddiqi	Dr. Fahad Tahir
7	Rabia Nazir 01-243202-019	Empirical Performance Evaluation of QUIC for Host Identity Protocol (HIP)	MS (CS)	Dr. Moneeb Gohar	Dr. Moazam Ali	Dr. Saleem Iqbal
8	Sadaf Aftab Abbasi 01-243202-020	Cyber-bullying detection using Neural Network Models	MS (CS)	Dr. Muhammad Asfand E Yar	Dr. Fatima Khaliq	Dr. Kifayat ullah Khan
9	Seemab Karim 01-243202-022	Enhanced Gateway Clustering Energy Efficient Centroid Based Routing Protocol for Wireless Sensor Network	MS (CS)	Dr. Kashif Naseer	Dr. Moneeb Gohar	Dr. Sajjad Khan
10	Tuba Khalid Kayani 01-243202-023	Recognition of Surgically Altered Face Image	MS (CS)	Dr. Sumaira Kausar	Dr. Imran Ahmed Siddiqi	Dr. Usman Akram

11	Danish Iqbal 01-243202-028	An Enhanced Cluster Based Routing Protocol for Data Aggregation in IoT	MS (CS)	Dr. Kashif Naseer	Dr. Moneeb Gohar	Dr. Muhammad Shiraz
12	Muhammad Azhar ud Din 01-243202-031	Blockchain Based Model for Data Aggregation in Smart Cities	MS (CS)	Dr. Kashif Naseer	Dr. Saba Mahmood	Dr. Humaira Ashraf
13	Mudassar Riaz 01-243202-029	Energy efficient routing by using nature inspired methods for internet of everything (IOE) Network	MS (CS)	Dr. Moazam Ali (Dr. Kashif Naseer)	Dr. Saleem Aslam	Dr. Humaira Ashraf
14	Salma Ajaib 01-243202-021	Enhanced Energy Aware and Link Efficient Routing Approach for Wireless Body Area Network	MS (CS)	Dr. Kashif Naseer	Dr. Saleem Aslam	Dr. Bushra Bashir
15	Syed Hassan Ali 01-243181-021	Satellite Image Analysis using semantic segmentation	MS (CS)	Dr. Sumaira Kausar	Dr. Imran Ahmed Siddiqi	Dr. Khurram Khurshid
16	Negarish Mushtaq 01-243201-007	Criminal Tendency Detection from Facial Images	MS (CS)	Dr. Momina Moetesum	Dr. Sumaira Kausar	Dr. Khurram Khurshid
17	Wasi Ullah 01-243211-014	Efficient load classification algorithm in wireless sensor network	MS (CS)	Dr. Moazam Ali	Dr. Moneeb Gohar	Dr. Sajjad Khan
18	Muhammad Tauqeer 01-243211-005	QUIC based Mobile Oriented Future Internet	MS (CS)	Dr. Moneeb Gohar	Dr. Moazzam Ali	Dr. Sajjad Khan
19	Shehnaz Bibi 01-243211-011	Nature Inspired Routing Protocol for High-Speed Network	MS (CS)	Dr. Ibrahim Tariq	Dr. Faisal Bashir	Dr. Kifayatullah Khan
20	M Saqib Riaz 01-243211-012	Framework for Extraction of Tactical Threat Intelligence from Cyber Threat Reports	MS (CS)	Dr. Faisal Bashir	Dr. Saba Mahmood	Dr. Bushra Bashir
21	Eiza Batool 01-249202-002	Single Document Visual Question Answering	MS (DS)	Dr. Imran Ahmed Siddiqi	Dr. Muhammad Asfand E Yar	Dr. Sadaf Abdul Rauf
22	Fida Muhammad 01-249202-005	ML Based Trend Analysis of Covid in Pakistan	MS (DS)	Dr. Fatima Khalique	Dr. Arif Ur Rehman	Dr. Sadaf Abdul Rauf
23	Hafiz Ahmad Raza 01-249202-006	Advertisement Detection in Broadcast Videos	MS (DS)	Dr. Imran Siddiqi	Dr. Sabina Akhter	Dr. Asim Munir
24	Iqra Ambreen 01-249202-007	Few Shots Learning for Identification of Writing Styles – An Application to Short Historical Scientific Notes	MS (DS)	Dr. Imran Siddiqi	Dr. Momina Moetesum	Dr. Amanullah Yasin

25	Sara Chaudhry 01-249202-014	Studying The Factors Affecting the Risk of Forest Fire Occurrence and Applying Machine Learning Techniques for Detection	MS (DS)	Dr. Sabina Akhter	Dr. Sumaira Kausar	Dr. Hammad Afzal
26	Ummer Hiyat Ahmad 01-249202-019	Spatio - Temporal Data Mining (STDM) For Hotspot Identification and Evolution in Health Informatics	MS (DS)	Dr. Fatima Khalique	Dr. Imran Ahmed Siddiqi	Dr. Rashid Hussain
27	Muhammad Nauman Ahmed Bhatti 01-249202-021	Story Segmentation and Analytics from News Bulletins	MS (DS)	Dr. Imran Ahmed Siddiqi	Dr. Muhammad Asfand e Yar	Dr. Rashid Hussain
28	Kanwal Fatima 01-249202-024	Information Extraction from Chart Images	MS (DS)	Dr. Momina Moetesum	Dr. Sumaira Kausar	Dr. Usman Akram
29	Laiba Sadeer 01-249202-008	Carbon foot print analysis in logistics using machine learning approaches for sustainable transportation	MS (DS)	Dr. Fatima Khalique	Dr. Momina Moetesum	Dr. Akhtar Jameel
30	Zain Raza 01-249211-017	Data Mining for Health Insurance Fraud Detection	MS (DS)	Dr. Fatima Khalique	Dr. Momina Moetesum	Dr. Amanullah Yasin
31	Javaria Amin 01-249211-002	Reconstruction of Missing Writing Strokes in Historical Manuscripts	MS (DS)	Dr. Imran Ahmed Siddiqi	Dr. Sumaira Kausar	Dr. Ayaz Hussain
32	Zaheer ud din Babar 01-249211-015	Decentralized health record management system using blockchain	MS (DS)	Dr. Ibrahim Tariq	Dr. Saba Mahmood	Dr. Tehmina Amjad
33	Nehal Yasin 01-249211-011	Supervised OCR Error Detection and Correction	MS (DS)	Dr. Imran Siddiqi	Dr. Muhammad Asfand e yar	Dr. Usman Akram
34	Hamza Sohail 01-247202-005	Intelligent Model of Cyber Physical Systems (CPS) for Internet of Things	MS(IS)	Dr. Kashif Naseer	Dr. Saba Mahmood	Dr. Waseem Iqbal
35	Khalid Imran 01-247202-008	Tracing Malicious Android Applications from Memory Dumps	MS(IS)	Dr. Faisal Bashir	Dr. Moneeb Gohar	Dr. Naveed Riaz
36	Muhammad Umair 01-247202-014	Investigation Techniques for Cloud Forensics	MS(IS)	Dr. Moazam Ali	Dr. Fatima Khalique	Dr. Sajjad Khan
37	Muhammad Usman 01-247202-015	CoAP over Multipath QUIC	MS(IS)	Dr. Moneeb Gohar	Dr. Faisal Bashir	Dr. Muazzam Khan Khattak
38	Raza Azeem 01-247202-018	ML Based Forensics of Social Network for Identification of Criminal Activity	MS(IS)	Dr. Saba Mahmood	Dr. Faisal Bashir	Dr. Tanvir Afzal

39	Sib Tul Hassan 01-247202-020	An Efficient Detection of Unauthorized Internet of Things Devices using Intelligent Techniques	MS(IS)	Dr. Kashif Naseer	Dr. Saba Mahmood	Dr. Waseem Iqbal
40	Usama Ehsan Abbasi 01-247202-021	An Efficient Signature and flow statistics-based anomaly detection system in software-defined networking for internet of things	MS(IS)	Dr. Kashif Naseer	Dr. Moazzam Ali	Dr. Naveed Riaz
41	Muhammad Ibrar 01-247202-011	Bot Detection in Online Social Network	MS(IS)	Dr. Saba Mahmood	Dr. Moneeb Gohar	Dr. Tanvir Afzal
42	Moiz Irfan 01-247202-009	AI based reputation model for trust in 5G and beyond	MS(IS)	Dr. Saba Mahmood	Dr. Moneeb Gohar	Dr. Muazzam Khan Khattak
44	Muhammad Nauman Munawar 01-247202-012	Privacy Preservation Technique for Unmanned Aerial Vehicles Network	MS(IS)	Dr Ibrahim Tariq	Dr. Moazzam Ali	Dr. Kashif Kifayat
45	Sohaib Rana 01-247201-016	Differential Linear Crypt Analysis Trails for Block Ciphers using DLCT	MS(IS)	Dr. Najam ul Islam	Dr. Faisal Bashir	Dr. Saleem Iqbal
46	Asad Ali Shah 01-248202-001	Impact of Cattaneo-Christov double diffusion on a Sutter by nanofluid flow over a rotating disk with Hall current and Ion slip	MS(Mathematics)	Dr. Muhammad Ramzan	Dr. Jafar Hasnain	Dr. Muhammad Bilal
47	Hafsa Bint E Arif 01-248202-004	Hall current and Ion slip impact on a Oldrayd-B nanofluid flow driven by two concentric rotating disks with Cattaneo-Christov heat flux	MS(Mathematics)	Dr. Muhammad Ramzan	Dr. Jafar Hasnain	Dr. Nasir Rahman
48	Iqra Rauf 01-248202-004	Ferromagnetic Jeffrey nanofluid flow influenced by magnetic dipole with cattaneo-christov double diffusion and gyrotactic microorganism	MS(Mathematics)	Dr. Muhammad Ramzan	Dr. Jafar Hasnain	Dr. Rashid Mahmood
49	Jawad Ali 01-248202-006	Significance of Hall current and Ion Slip in a three-dimensional Maxwell nanofluid flow over a rotating disk with variable characteristics	MS(Mathematics)	Dr. Muhammad Ramzan	Dr. Jafar Hasnain	Dr. Nasir Rahman
50	Sana Ahmed 01-248202-009	Exact solution of Jeffrey fluid flow due to stretching/shrinking surface	MS(Mathematics)	Dr. Rizwan Ul Haq	Dr. Muhammad Ramzan	Dr. Bilal Ashraf

51	Hira Masood 01-248202-002	Relation among fluid flows overlinear, nonlinear stretching/shrinking sheets	MS(Mathematics)	Dr. Rizwan Ul Haq	Dr. Muhammad Ramzan	Dr. Rashid Mehmood
52	Tufail Abbas 01-248202-003	Numerical solution of micropolar fluid due tomoving surface	MS(Mathematics)	Dr. Rizwan Ul Haq	Dr. Muhammad Ramzan	Dr. Syed Tayyab Hussain
53	Taqwa Kiani 01-248202-010	Entropy analysis due to free convection flow over a vertical surface	MS(Mathematics)	Dr. Rizwan Ul Haq	Dr. Muhammad Ramzan	Dr. Umer Farooq
54	Zara Mushtaq 01-248202-011	Thermally stratified Bödewadt flow of hybrid nanofluid	MS(Mathematics)	Dr. Jafar Hasnain	Dr. Muhammad Ramzan	Dr. Tariq Javed
55	Zulfiqar Ali 01-248202-012	Heat transfer analysis of Johnson-Segalman fluid in a tapered asymmetric channel	MS(Mathematics)	Dr. Jafar Hasnain	Dr. Muhammad Ramzan	Dr. Nasir Ali
56	Saba Noureen 01-248202-008	Bioconvection in Reiner-Philippoff fluid flow over a slendering sheet	MS(Mathematics)	Dr. Jafar Hasnain	Dr. Muhammad Ramzan	Dr. Irfan Mustafa

Appointment of Examiners for MS Thesis Defense EE Department, Islamabad Campus

SNo.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Asher Sajid 01-244211-016	A Crypto Accelerator of Binary Edward Curves for Securing Low-resource Embedded Devices	MS(EE)	Dr. Atif Raza Jafri	Dr. Imran Fareed Nizami	Dr. Muhammad Awais
2	Talha Shakil 01-244211-015	Implementation of AI based approach for disturbance estimation of a MIMO nonlinear system.	MS(EE)	Dr. Imran Fareed Nizami (Engr. Nadia Imran)	Engr. Ammara Naseem	Dr. Ahsan Ali
3	Shoaib Zia 01-244211-010	Adaptive Neural Network Method for an Exoskeleton Device Control	MS(EE)	Engr. Maryam Iqbal	Engr. Nadia Imran	Dr. Ahsan Ali
4	Tanveer Hussain 01-244211-011	FDI Attack; Mitigation and Robust Control in a Smart Grid	MS(EE)	Engr. Maryam Iqbal	Dr. Asad Waqar	Dr. Mukhtar Ullah
5	Asra Sarwat 01-244211-001	Non-linear control of two fingers model for movement coordination	MS(EE)	Engr. Maryam Iqbal	Engr. Nadia Imran	Dr. Mukhtar Ullah
6	Mujahid Mehmood Janjua 01-244211-008	Optimal Siting and Sizing of batteries and Shunt Capacitors in Regional Feeders for Loadability Enhancement	MS(EE)	Dr. Asad Waqar	Engr. Faheem Haroon	Dr. Muhammad Zahid
7	Faiz Ullah Shah 01-244211-002	Optimal Power Flow Analysis with focus on Stochastic Demand Side Management	MS(EE)	Dr. Imtiaz Alam	Dr. Asad Waqar	Dr. Intisar Ali Sajjad
8	Muhammad Kashif Shahzad 01-244211-007	Power Quality Enhancement of Sensitively Loaded Grids Connected to Textile Industry	MS(EE)	Dr. Asad Waqar (Engr. Shahab Shahid)	Engr. Syed Umaid Ali	Dr. Azhar ul-haq
9	Umair Zia 01-244211-012	Analysis of Optimal BESS Sizing in Maritime Microgrids Considering Available Topographical Generation-Mixes	MS(EE)	Engr. Shahab Shahid	Dr. Asad Waqar	Dr. Muhammad Aamir
10	Jawad Tariq 01-244211-004	MPC-based Energy Management System of Clustered Microgrids	MS(EE)	Engr. Mudasir Wahab	Engr. Syed Umaid Ali	Dr. Muhammad Aamir
11	Nouman Saeed Babar 01-244211-014	A novel hybrid swarming based computational paradigm for optimizing fuel generation cost & copper losses in Power System	MS(EE)	Engr. Nadia Imran	Engr. Mudasser Wahab	Dr. Intisar Ali Sajjad

12	Mahnoor Bangash 01-244211-005	Optimal Power Flow in Regional Distribution Feeders with Simultaneous Penetration of DGs and EVs	MS(EE)	Dr. Asad Waqar	Engr. Faheem Haroon	Dr. Syed Haider
13	Sami Ahmad 01-244202-026	Simulation and Performance Analysis of Millimeter Wave Communication Using Hybrid Beamforming	MS(EE)	Dr. Imtiaz Alam (Engr. Hassan Danish)	Dr. Adil Ali Raja	Dr. Ali Imran Najam
14	Irfanullah 01-244202-009	Optimal Resource Management for 5G based Machine-to Machine (M2M) Communication	MS(EE)	Dr. Saleem Aslam	Dr. Imran Fareed Nizami	Dr. Amir Habeeb

Appointment of Examiners for MS Thesis Defense EES Department, Islamabad Campus

S No.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Haram Riaz 01-262202-018	Effect Of Climate Change on Crop Water Requirement Using Cmic6 Data Over Pakistan	MS(ES)	Dr Humera Farah (Dr. Tahir Ali Khan)	Mr. Syed Umair Ullah Jamil	Dr. Muhammad Asad Ghufran
2	Zar Afshan 01-262202-028	Impact of Marble Dust on Respiratory Health of Workers in Hattar Industries Haripur, Pakistan	MS(ES)	Ms. Fiza Sarwar	Dr. Aansa Rukya Saleem	Dr. Waqar un Nisa
3	Rabia Tabassum 01-262211-012	Development Of Modified Nutshell Based Adsorbent for Removal of Organic Pollutants from Wastewater	MS(ES)	Dr. Said Akbar Khan	Dr Humera Farah	Dr. Said Muhammad
4	Anum Ahmed 01-262211-014	Microbiological analysis of hospital-acquired infections in patients	MS(ES)	Dr. Aansa Rukya	Dr. Asma Jamil	Dr. Tahir Hayat
5	Saeed Ayaz Khan 01-262211-015	Detection and Ecological risk assessments of selected pharmaceutical compounds in industrial effluents of National Industrial Zone, RCCI Rawat, Pakistan	MS(ES)	Dr. Asma Jamil	Dr. Aansa Rukya Saleem	Dr. Hamid Iqbal
6	Zeeshan Bulbul 01-262211-016	Pulmonic Health Effect of Air Borne Particulate Matter in Gilgit Baltistan, Pakistan	MS(ES)	Ms. Fiza Sarwar	Dr Humera Farah	Dr. Mazhar Iqbal
7	Rabia Farooq 01-262211-021	Assessment of heavy metal contamination in soil and air samples in selected sites around Rawat industrial zone, Islamabad, Pakistan.	MS(ES)	Dr. Aansa Rukya Saleem	Ms. Fiza Sarwar	Dr. Mazhar Iqbal
8	Mujtaba Akhtar 01-262202-006	3D Seismic Structural Interpretation and Sub-Surface Modeling of Rajian Area, Eastern Potwar Basin, Pakistan	MS(GEO)	Mr. Tausif Ahmad	Mr. Saqib Mehmood	Mr. Muiyassar Hussain
9	Abdur Rasheed 01-262202-029	Sedimentologic characteristics of Cretaceous Kawagarh Formation, Tauheedabad Section, Hazara Basin, KP, Pakistan	MS(GEO)	Dr. Mumtaz Ali Khan (Mr. Saqib Mehmood)	Dr. Muhammad Zafar	Hafiz Muhammad Shahzad Anjum
10	Hussein Mohamed Abdi 01-262211-002	Mineralogical and Geotechnical Characteristics of Sandstone of the	MS(GEO)	Dr. Tahseenullah Khan (Dr. Mumtaz Ali Khan)	Mr. Saqib Mehmood	Dr. Mustafa Yar

		Muree Formation, Islamabad Section, Islamabad, Pakistan				
11	Muhammad Harris Khan 01-262211-003	Source rock characterization of shales of Paleocene Ranikot Formation using well logs and outcrop data, Kirthar Fold Belt, Lower Indus Basin, Pakistan	MS(GEO)	Dr. Tahseenullah Khan (Mr. Saqib Mehmood)	Dr. Muhammad Zafar	Dr. Muhammad Hanif
12	Pir Zada 01-262211-005	Intrinsic Vulnerability Assessment of Ground Water Using Drastic Method of Topi Area, District Swabi Khyber Pakhtunkhwa, Pakistan	MS(GEO)	Dr. Mumtaz Ali Khan	Dr. Muhsan Ehsan	Dr. Zulfiqar Ahmad
13	Syed Qadeer Hussain Shah Bukhari 01-262211-006	Impact of small dam construction on groundwater potential and quality assessment of Muzaffarabad area of Azad Jammu and Kashmir, Pakistan	MS(GEO)	Dr. Muhsan Ehsan (Dr. Ibrar Niaz)	Dr. M. Fahad Mehmood	Dr. Munawar Shah
14	Zulqernain Akram 01-262211-007	Structural Interpretation of Western margin of Tanwin Bains Anticline, Eastern Potwar sub-basin, Pakistan	MS(GEO)	Mr. Tausif Ahmad	Mr. Saqib Mehmood	Mr. Muftaba Mehmood Mongat
15	Muhammad Mohib 01-262211-018	Hydrogeological framework and estimation of aquifer hydraulic parameters using geoelectrical data; vicinity of Rawalpindi, Islamabad	MS(GEO)	Dr. M. Fahad Mehmood	Dr. Urooj Shakir	Dr. Zulfiqar Ahmad

Appointment of Examiners for MS Thesis Defense SE Department, Islamabad Campus

SNo.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Osama Ali 01-241201-016	Analysis Of Novel Machine Learning Models for Diagnosis of Covid-19 Through Radiography Images	MS (SE)	Dr. Adeel M Syed	Dr. Raja M Suleman	Dr. Usman Akram
2	Usman Ali 01-241202-021	Usability engineering framework for evaluating education management system.	MS (SE)	Dr. Awais Majeed (Dr Raja M Suleman)	Dr Tamim A Khan	Dr. Shariq Hussain
3	Ammarah Waheed 01-241211-001	Code Smells Detection Using Deep Learning Methods	MS (SE)	Dr. Tamim A Khan	Dr. Kashif Sultan	Dr. Khalid Iqbal
4	Muzalfa Ashraf 01-241211-006	Code Smells based Software Fault Prediction Using Deep Learning Techniques	MS (SE)	Dr. Tamim A Khan	Dr. Kashif Sultan	Dr. Khalid Iqbal
5	Hira Saleem 01-241202-018	Predicting Student Performance by analyzing their behaviour in E-Learning Systems through Interaction Pattern Mining	MS (SE)	Dr. Tamim A Khan	Dr. Raja M Suleman	Dr. Shariq Hussain
6	Sania Kanwal 01-241202-012	Web Applications Vulnerability Analysis using deep learning	MS (SE)	Dr. Tamim A Khan	Dr. Kashif Sultan	Dr. Muddassar Azam Sindhu
7	Sadia Rashid 01-241211-009	Android Malware Detection using Dynamic Feature Analysis	MS (SE)	Dr. Tamim A Khan	Dr. Adeel M Syed	Dr. Majid Iqbal

Appointment of Examiners for MS Thesis Defense EES Department, Karachi Campus

S No.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Muhammad Sumair Sultan 02-262211-005	A Step to Develop Environmentally Sustainable Catalyst	MS (ES)	Dr. Salma Hamza (Dr. Waqar uddin)	Shaista Iftikhar	Dr. Nusrat Begum Jalbani

Appointment of Examiners for MS Thesis Defense EE Department, Karachi Campus

S No.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1.	Faizan Hassan 02-344211-004	Dual Artificial Intelligent Controller for Partial Shading and Power Quality Improvement of On-Grid PV System	MS (EE)	Dr. Hina Shakir	Dr. Talha Ahmed Khan	Dr. Raja Masood Larik
2.	Majid Ali 02-344211-006	Parkinson's Disease Diagnosis and Prediction of its Progression using Machine Learning Techniques	MS (EE)	Dr. Hina Shakir	Dr. Aurangzeb Rashid Masud	Dr. Yawar Rehman
3.	Muhammad Zubair 02-344211-011	Optimization of energy allocation, user selection and number of alteration of antennas in feedback limited of channel state information in MU-MIMO system	MS (EE)	Dr. Haroon Rasheed	Dr. Mukesh Kumar Maheshwari	Dr. Rehan Qureshi
4.	Sharjeel Ahmed 02-244201-010	Design of 2.4GHz Ultra-Low Power Low Noise Amplifier(LNA) for WSN Nodes	MS (EE)	Faisal Siddiqui	Dr. Mukesh Kumar Maheshwari	Dr. Hashim Raza Khan
5.	Yaseen Badar 02-344211-012	Speed control of separately excited DC motor using AI techniques	MS (EE)	Dr. Hina Shakir	Dr. Talha Ahmed Khan	Dr. Tariq Mairaj

Appointment of Examiners for MS Thesis Defense CS Department, Lahore Campus

SNo.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1.	Muhammad Umair Anwar 03-243202-032	Hand Gestures Estimation Using Deep Learning	MS(CS)	Dr. Iram Noreen	Dr. Ghulam Mustafa	Dr. Muhammad Hamid
2.	Ali Shafqat 03-243202-024	Analysis And Prediction of Stock Value Using Machine Learning	MS(CS)	Dr. Ghulam Mustafa Muhammad Zunnurain Hussain	Dr. Saira Andleeb Gillani	Dr. Adnan Nabeel Qureshi
3.	Muhammad Sohaib Saleem 03-243202-010	Perceived Usability Evaluation of Virtual Platform	MS(CS)	Dr. Abdul Hafeez	Dr. Muhammad Aasim Qureshi	Dr. Farrukh Zeshan
4.	Hafiza Iqra Shamim 03-243202-020	Automated Vulnerability Detection for Software Using Nlp Techniques	MS(CS)	Mr. Asghar Ali Shah	Dr. Irum Noreen	Dr. Muhammad Shoaib Farooq
5.	Anam Abrar 03-243202-025	Integrating Ahp into Heuristic Evaluation Technique to Enhance Usability Evaluation Process	MS(CS)	Dr. Abdul Hafeez	Dr. Ghulam Mustafa	Dr. Ansar Siddique
6.	Waleed Ur Rehman 03-243192-016	Emotion Aware Recommender System	MS(CS)	Dr. Ghulam Mustafa (Mr. Numan Aslam)	Dr. Saira Andleeb Gillani	Dr. Adnan Nabeel Qureshi
7.	Hafiza Sana Shamim 03-243202-002	Detecting Social Bots' Activity in Twitter Using Deep Learning Approach	MS(CS)	Mr. Asghar Ali Shah	Dr. Khurram Ehsan	Dr. Sheraz Naseer

Annex-II: Appointment of Examiners for PhD Proposal Defense

SNo.	Name (Enrolment #)	Program	Research Title	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Nazia Shahmir 01-283202-001	PhD Mathematics, BUIC	Effects of magnetohydrodynamics on mono and hybrid nanofluid flows over different geometries	Dr. Muhammad Ramzan	Dr. Jafar Hasnain	Dr. Nasir Ali Dr. Noureen Sher Akbar
2	Ali Raza 01-283202-002	PhD Mathematics, BUIC	Mixed convection analysis due to heated source in channels and deformable enclosure	Dr. Jaffer Hasnain (Dr. Rizwan ul Haq)	Dr. Muhammad Ramzan	Dr. Syed Tayyab Hussain Dr. Sohail Nadeem
3	Haider Shabbir 01-286212-001	PhD Geophysics, BUIC	Hydrogeological modelling of shallow active landslides by using Time lapsed current measurement, Jhelum Basin, Pakistan	Dr. Muhsan Ehsan	Dr. M. Fahad Mahmood	Dr. Zulfiqar Ahmad Dr. Arshad Ashraf
4	Rana Faisal Shahzad 01-286212-002	PhD Geophysics, BUIC	The role of salt tectonics in developing structural geometries of the Potwar Fold and Thrust Belt, Pakistan	Dr. M. Iqbal Hajana	Dr. Muhsan Ehsan	Dr. Rahmat Ali Gakkhar Dr. Tahir Azeem
5	Saima Nazir 01-286212-003	PhD ES, BUIC	Comparative analysis of air pollutants and study of their co relation with smog formation in Islamabad	Dr. Said Akbar Khan	Dr. Aansa Rukya Saleem	Dr. Javed Nawab Dr. Said Muhammad

Annex-III: Inclusion of Experts in the list of Local External Examiners

SNo.	Name	Designation	Affiliation	Research Area(s)	Sponsored By
1	Dr. Ihtisham Ali	Assistant Professor	Sino-Pak Center for Artificial Intelligence, PAK-Austria Fachhochschule, Institute of Applied Sciences and Technology, Haripur, KPK, Pakistan	Data Science and Artificial Intelligence Applications development for Smart Agriculture	CS, BUIC
2	Dr. Ateeq ur Rehman	Assistant Professor	University of Haripur	Wireless Networks	CS, BUIC
3	Dr. Labiba Fahad	Associate Professor	FAST NU Islamabad	Pervasive Healthcare, Machine Learning, Deep Learning, Pattern Recognition, Smart Homes	CS, BUIC
4	Dr. Muhammad Imran	Assistant Professor	Air University Islamabad	Malware analysis & classification, Embedded system security	SE, BUIC
5	Dr. Muhammad Majid	Associate Professor	UET, taxila	Signal Processing, Artificial Intelligence, Image processing	EE, BUIC
6	Dr. Muhammad Jamil	Lecturer	COMSATS University Islamabad, Abbottabad Campus	Geology	EES, BUIC
7	Dr. Aftab Khan	Associate Professor	Allama Iqbal Open University	Digital Image Restoration, Pattern Recognition, Cryptography and Network Security, Medical Image Processing, Machine Learning, Deep Learning, Digital Image and Video Compression	CE, BUIC
8	Dr. Farhan Aadil	Assistant Professor	COMSATS University Islamabad	Routing Optimization, Evolutionary Algorithms, Flying Ad-Hoc Networks (FANETs), Vehicular Ad Hoc Networks (VANETs), Body Area Networks, Internet of Things (IoTs)	CE, BUIC
9	Dr. Sheeraz Akram	Associate Professor	Superior University, Lahore	Data Science, Artificial Intelligence, Data Science, Machine Learning, Deep Learning, Medical Imaging, Computer Vision, STEM Education Research, Digital Image Processing	CE, BUIC

10	Dr. Zain Anwar Ali	Associate Professor	Sir Syed University	Optimization Algorithms, Bio-Inspired Algorithm, Unmanned vehicles, Control Theory	CS, BUKC
11	Dr. Faraz Shaikh	Associate Professor	Nazeer Hussain University	Digital Signal & Image Processing, Digital Electronics and Microwave Imaging	CS, BUKC
12	Dr. Syed Mubashir Ali	Assistant Professor	PAFKIET	Machine Learning, Soft Computing, Information Security	CS, BUKC
13	Dr. M. Ghazanfarullah Khan	Professor	UIT, University	Wireless Sensors Networks	CS, BUKC
14	Dr. Mahmood Ali	Associate Professor	NED University of Engineering & Technology	Bioenergy, Biofuel, Renewable energy	EES, BUKC
15	Dr. Omm e Hani	Professor	Institute of Environmental Studies, University of Karachi	Environmental Sciences	EES, BUKC
16	Dr. Najma Abbas Naqvi	Chairman and Project Director of National Center of GIS and Space Applications (NCGSA)	Institute of Space Technology (IST)	Spacecraft Dynamics and Controls, Global Navigation Satellite System (GNSS), Satellite Power Control System Planning	EE, BUKC
17	Dr. Syed Arsalan Jawed	Professor	PAF-KIET, Karachi	VLSI Design, Analog IC Design, Microelectronics	EE, BUKC
18	Dr. Farooque Hassan Kumbhar	Associate Professor	FAST NUCES, Karachi	Autonomous vehicular communications, Internet of things, wireless networks, Privacy, Communications, Routing and Mobile Networks	EE, BUKC
19	Dr. Muhammad Mazhar Iqbal	Assistant Professor	PAF-KIET, Karachi	Embedded System, FPGA Based System Design, Digital Circuit Design	EE, BUKC
20	Dr. Zia ul Rehman	Assistant Professor	Kinnaird College Lahore	Machine Learning, Text Mining, NLP	CS, BULC

Annex-IV: Inclusion of Experts in the List of Foreign Evaluators

SNo.	Name	Designation	Affiliation	Post-PhD Experience	Research Area(s)	Sponsored By
1	Dr. Wei Xu	Professor	Huazhong University of Science & Technology, Wuhan, China	15 Years	Electromagnetic design and control algorithm of electrical machines and drive systems (linear machines, permanent magnet machines, brushless doubly-fed induction machines (BDFIMs), high-speed machines, etc.), DC/DC converters, back to back converters.	EE, BUIC
2	Dr. Hazlie Bin Mokhlis	Professor	University Of Malaya, Malaysia	12 Years	Power And Energy Systems, Smart Grids, Fault Location, Network Reconfiguration, Islanding Operation, Islanding Detection, And Renewable Energy	EE, BUIC
3	Dr. Shi Xiaohan	Associate Professor	Shandong University	7 Years	Modeling And Management Of Battery Energy Storage, Aggregation And Control Of Disturbed Flexible Resources, Power System Stability Control Based On New Flexible Resources	EE, BUIC
4	Dr. Ahmed E. Radwan	Professor	Faculty of Geography and Geology, Institute of Geological Sciences, Jagiellonian University, Krakow, Poland	5 Years	Petroleum Geosciences	EES, BUIC
5	Dr. Artur Boronat	Associate Professor	University of Leicester, UK	15 Years	Agile software development for the cloud using JVM technology and applications in healthcare and industry 4.0; Design and implementation of DSLs using model-driven software development and type theory; Application of AI technology and formal methods in the intersection of the two areas above.	SE, BUIC
6	Dr. Ian A. Watson	Research Officer, Program	James Watt School of Engineering, University of Glasgow, UK	8 years	Bioenergy, Biofuel, Renewable energy,	EES, BUKC

		Coordinator				
7	Dr. Saeid Baroutian	Director- University Research Centre For Climate, Biodiversity And Society. Associate Professor	Department of Chemical and Materials Engineering, University of Auckland, New Zealand	11 Years	Climate Change, Biodiversity, Food Processing, Energy & Processing, Engineering Biotechnology, Waste Reduction & Recycling	EES, BUKC
8	Dr. Rini Asnida Binti Abdullah	Associate Professor	Department Of Geotechnics & Transportation School of Civil Engineering Faculty of Engineering, Universiti Teknologi Malaysia	11 Years	Geology and Rock Mechanics, Geospatial, Engineering Geology And Environment	EES, BUKC
9	Dr. Hangseok Choi	Professor	School Of Civil, Environmental And Architectural Engineering, Korea University	10 Years	Environmental and Architectural Engineering, Climate Change	EES, BUKC
10	Dr. Federico Preti	Professor	Agricultural, Food, Environmental and Forestry Sciences And Technologies, University Of Florence, Italy	23 Years	Environmental Sciences, Management & Analysis, Land Use Management, Sustainability, Environmental Monitoring, Geospatial Analysis	EES, BUKC
11	Dr. Cigdem Beyan	Assistant Professor	University of Trento, Italy	8 Years	Machine and Deep Learning, Computer Vision and Multimedia, Multimodal Analysis of Nonverbal Social Interactions & Social Signal Processing	CE, BUIC
12	Dr. Seungmin Rho	Associate Professor	chung-Ang University, Republic of Korea	14 Years	Big Data Analysis, Multimedia Database and Applications, Music Information Retrieval and Recommendation, eXplainable Learning in AI, Biometric Authentication	CE, BUIC
13	Dr. Rosilah Hassan	Associate Professor	Universiti Kebangsaan Malaysia	14 Years	Cyber Security, Big Data, IoT, Wireless Communication, 5G	CS, BUKC
14	Dr. Kaharudin Bin Dimyati	Professor	Faculty of Engineering, Universiti Malaya	26 Years	Wireless and Optical Communication System	CS, BUKC

Annex-V: Recommendation of Foreign Evaluators for PhD Candidates

SNo.	Name	Dept.	Program	Supervisor	Theis Title	Recommended Foreign Evaluators
1.	Shaista Mahmud 02-283161-003	EES, BUKC	PhD Geophysics	Dr. Salma Hamza (Prof. Dr. Anwar Qadir)	Spatial Analysis of Groundwater Quality using Geophysical and Geochemical approach in Uthal, Balochistan	Dr. Nordiana Mohd Muztaza Dr. Haylay Tsegab Dr. Sun Jichao Dr. You Liang Ji
2.	Muhammad Raiees Amjad 01-286162-001	EES, BUIC	PhD Geology	Dr. Mohammad Zafar	Constraining Pore Pressure Prediction in Relevance with the Basin Architecture of Eastern Potwar, Pakistan	Dr. Haylay Tsegab Dr. You Liang Ji Dr. Ahmed E. Radwan Dr. Kamaldeen Olakunle Leif, Omosanya
3	Syed Umaid Ali 01-281172-006	EE, BUIC	PhD EE	Dr. Asad Waqar (Dr. Muhammad Aamir)	Control of hybrid AC-DC Microgrids using variable weighing factor algorithm	Dr. Saad Mekhilef Dr. Chengxi Liu Dr. Shaorong Wang Dr. Kimmo Kauhaniemi
4	Madiha Khalid 01-281162-002	EE, BUIC	PhD EE	Dr. Najam Ul Islam (Dr. Umar Mujahid)	Secure Architecture for Resource Constraint RFID enabled IoT Applications	Dr. Amer Bhagdadi Dr. Jaime Lloret Dr. Naima Kaabouch Dr.Naveen Chilamkurti Smiee
5	Farrukh Shahzad Ahmed 01-281162-002	SE, BUIC	PhD SE	Dr. Tamim A Khan (Dr.Awais Majeed)	Applications of Value-Centric Regression Testing for Software Applications	Dr. Reiko Hackel Dr. Harith Al Sahaf Dr. Seungmin Rho Dr. Artur Boronat
6	Tabinda Sajjad 01-283191-001	CS, BUIC	PhD (Mathematics)	Dr. Rizwan ul Haq	Non-Orthogonal Stagnation Point Flow Of Nanofluid Along A Moving Surface	Dr. J. M. Floryan Dr. O. D. Makinde Dr. Noor Fadiya Binti Mohd Noor Dr. M. Reza Safaei

Annex-VI: Appointment of Supervisors & Advisory Committees

SNo.	Name (Enrollment #)	Program	Dept. / Campus	Supervisor (Co-Supervisor)	Advisory Committee
1	Qasim Mehmood 01-284221-001	PhD CS	CS, BUIC	Dr. Imran Ahmed Siddiqi	Dr. Imran Ahmed Siddiqi Dr. Sumaira Kausar Dr. Momina Moetesum
2	Athar Waqar Alavi 01-284221-002	PhD CS	CS, BUIC	Dr. Moneeb Gohar	Dr. Moneeb Gohar Dr. Faisal Bashir Dr. Moazzam Ali
3	Abrar Ahmed 01-281221-001	PhD EE	EE, BUIC	Dr. Imtiaz Alam	Dr. Imtiaz Alam Dr. Imran Fareed Nizami Dr. Adil Ali Raja
4	MUHAMMAD HASAN DANISH KHAN (01-281172- 001),	PhD EE,	EE, BUIC	Dr. Junaid Imtiaz (Dr. M. Najam-ul-Islam),	Dr. Imtiaz Alam Dr. Imran Fareed Nizami Dr. Adil Ali Raja
5	Zia Ur Rehman 01-281222-002	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Muhammad Aamir)	Dr. Asad Waqar Dr. Habib ur Rahman Habib Dr. M. Shoaib Khalid
6	Muhammad Junaid 01-281222-001	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Imran Fareed Nizami)	Dr. Asad Waqar Dr. Intisar Ali Sajjad Dr. M. Shoaib Khalid
7	Haider Shabbir 01-286212-001	PhD Geophysics	EES, BUIC	Dr. Muhsan Ehsan	Dr. Muhsan Ehsan Dr. M. Fahad Mehmood Dr. Urooj Shakir
8	Rana Faisal Shahzad 01-286212-002	PhD Geophysics	EES, BUIC	Dr. M. Iqbal Hajana	Dr. M. Iqbal Hajana Dr. M. Fahad Mehmood Dr. Muhsan Ehsan
9	Saima Nazir 01-286212-003	PhD ES	EES, BUIC	Dr. Said Akbar Khan	Dr. Said Akbar Khan Dr. Asma Jamil Dr. Aansa Rukaya Saleem

10	Hina Wajid Satti 01-286182-002	PhD Geology	EES, BUIC	Dr. Tahseenullah Khan (Dr. M. Fahad Mehmood)	Dr. Tahseenullah Khan Dr. Muhammad Iqbal Hajana Dr. Urooj Shakir
11	Muhammad Raiees Amjad 01-286162-001	PhD Geology	EES, BUIC	Dr. Mohammad Zafar	Dr. Muhammad Zafar Dr. Urooj Shakir Dr. M. Iqbal Hajana
12	Muhammad Nofal Munir 01-286172-001	PhD Geology	EES, BUIC	Dr. Muhammad Zafar (Dr. Muhsan Ehsan)	Dr. Muhammad Zafar Dr. M. Iqbal Hajana Dr. M. Fahad Mehmood
13	Furqan Aftab 01-286172-003	PhD Geology	EES, BUIC	Dr. Muhammad Zafar (Dr. M. Iqbal Hajana)	Dr. Muhammad Zafar Dr. M. Iqbal Hajana Dr. Muhsan Ehsan
14	Waqar Ahmad 01-286192-001	PhD Geology	EES, BUIC	Dr. Muhammad Zafar	Dr. Muhammad Zafar Dr. Maryam Saleem Dr. M. Iqbal Hajana
15	Adil Naseer 01-286172-004	PhD Geology	EES, BUIC	Dr. Tahseenullah Khan	Dr. Tahseenullah Khan Dr. Mohammad Zafar Dr. Muhammad Fahad Mehmood
16	Adeeb Ahmad 01-286172-005	PhD Geology	EES, BUIC	Dr. Tahseenullah Khan (Dr. Samina Jahandad)	Dr. Tahseenullah Khan Dr. Mohammad Zafar Dr. Mumtaz Ali Khan
17	Muhammad Asif Khan 01-286172-007	PhD Geology	EES, BUIC	Dr. Tahseenullah Khan (Dr. Aamir Ali)	Dr. Tahseenullah Khan Dr. Muhsan Ehsan Dr. Mumtaz Ali Khan
19	Waqar Ali 01-286172-009	PhD ES	EES, BUIC	Dr. Asma Jamil (Dr. Zia Hashmi)	Dr. Said Akbar Khan Dr. Humera Farah Dr. Asma Jamil
20	Kamran Younas 01-286202-004	PhD ES	EES, BUIC	Dr. Asma Jamil (Dr. Mahtab Ahmad)	Dr. Asma Jamil Dr. Said Akbar Khan Dr. Humera Farah
21	Sumera Akram 01-286182-001	PhD ES	EES, BUIC	Dr. Said Akbar Khan (Dr. Syed Jabir Hussain)	Dr. Said Akbar Khan Dr. Aansa Rukaya Saleem Dr. Humera Farah
22	Abdul Shakoor 01-286182-003	PhD ES	EES, BUIC	Dr. Said Akbar Khan (Dr. Syed Jabir Hussain)	Dr. Said Akbar Khan Dr. Asma Jamil Dr. Humera Farah

23	Syed Maqsood Ali Gilani 01-286202-001	PhD Geophysics	EES, BUIC	Dr. M. Iqbal Hajana	Dr. M. Iqbal Hajana Dr. M. Fahad Mehmood Dr. Urooj Shakir
24	Aneela Khan 01-286172-002	PhD ES	EES, BUIC	Dr. Humera Farah (Dr. Muhammad Azmat)	Dr. Humera Farah Dr. Said Akbar Khan Dr. Aansa Rukaya Saleem
25	Zainab Wahab 01-286172-008	PhD ES	EES, BUIC	Dr. Humera Farah (Dr. Abdul Waheed)	Dr. Humera Farah Dr. Said Akbar Khan Dr. Asma Jamil
26	Umar Manzoor 01-286202-002	PhD Geophysics	EES, BUIC	Dr. Muhsan Ehsan	Dr. Muhsan Ehsan Dr. M. Iqbal Hajana Dr. Muhammad Fahad Mehmood
27	M. Faisal Siddiqui 02-281172-002	PhD EE	EE, BUKC	Dr. Mukesh Kumar Maheshwari	Dr. Mukesh Kumar Maheshwari Dr. Haroon Rasheed Dr. Anzar Alam
28	Muhammad Ovais Akhter 02-281192-001	PhD EE	EE, BUKC	Dr. Aurangzeb Rashid Masud	Dr. Aurangzeb Rashid Masud Dr. Mukesh Kumar Maheshwari Dr. Imran Naseem
29	Rana Saeed Ahmed 02-281181-001	PhD EE	EE, BUKC	Dr. Muhammad Raza	Dr. Muhammad Raza Dr. Raja Masood Larik Dr. Mohsin Aman
30	Javed Ahmed 02-284222-001	PhD CS	CS, BUKC	Dr. Ghulam Muhammad	Dr. Ghulam Muhammad Dr. Safdar Ali Rizvi Dr. Talha Ahmed Khan

Annex-VII: Recommendation of Examiners for PhD Final Thesis Defense (FTD)

SNo.	Name (Enrolment #)	Dept./Campus	Program	Supervisor (Co-Supervisor)	Thesis Title	Recommended Examiners ¹
1.	Khurrum Mustafa Abbasi 01-281152-002	SE, BUIC	PhD SE	Dr. Tamim A Khan (Dr. Irfan ul Haq)	A Unified Modeling Framework for Internet of Things (IoT) Systems	External Examiners: Dr.Irum Inayat Dr.Hammad Afzal Dr.Basit Shahzad Dr.Khalid Saleem Internal Examiners: Dr. Awais Majeed (BUIC) Dr Sohaib Ahmed (BUKC)
2.	Hajra Masood 02-284151-002	CS, BUKC	PhD CS	Dr. Humera Farooq	Vision Based Gait Recognition Robust to View and Appearance Variance	External Examiners: Dr. Muhammad Sarim Dr. Nadeem Mehmood Dr. Yawar Rehman Dr. Syed Abbas Ali Internal Examiners: Dr Imran Ahmed Siddiqi (BUIC) Dr. Raheel Siddiqi (BUKC)
3.	Madiha Zoheb 01-281162-002	EE, BUIC	PhD EE	Dr. Najam Ul Islam (Dr. Umar Mujahid)	Secure Architecture for Resource Constraint RFID enabled IoT Applications	External Examiners: Dr. Sajjad Ahmad Madni Dr. Rizwan Ahmad Dr. Muazzam A. Khan Dr. Yasar Amin Internal Examiners: Dr. Osama Muhammad Hussain Rehman (BUKC) Dr. Haroon Rasheed (BUKC)

¹ Subject to clearance of foreign evaluation where applicable

Annex-VIII: Extension in Time Bar of PhD Scholars

SNo.	Name	Dept.	Program	Supervisor	Decision
1.	Madiha Khalid 01-281162-002	EE, BUIC	PhD EE	Dr. Najam Ul Islam	One year extension granted by the FRC
2.	Khurram Mustafa Abbasi 01-281152-002	SE, BUIC	PhD SE	Dr. Tamim A Khan (Dr. Irfan ul Haq)	One year extension recommended by the FRC for approval from the competent authority
3.	Farrukh Shahzad Ahmed 01-281162-001	SE, BUIC	PhD SE	Dr. Tamim A Khan (Dr. Awais Majeed)	One year extension granted by the FRC
4.	Muhammad Raiees Amjad 01-286162-001	EES, BUIC	PhD Geology	Dr. Mohammad Zafar	One year extension granted by the FRC
5.	Joddatt Fatima 01-284152-001	CS, BUIC	PhD CS	Dr. Amina Jameel	One year extension recommended by the FRC for approval from the competent authority
6.	Zainab Yousaf 01-284152-002	CS, BUIC	PhD CS	Dr. Amina Jameel	One year extension recommended by the FRC for approval from the competent authority
7.	Naureen Hassan 02-284162-001	CS, BUKC	PhD CS	Dr. Syed Safdar Ali Rizvi	One year extension granted by the FRC
8.	Adnan Abdullah 02-284162-002	CS, BUKC	PhD CS	Dr. Syed Safdar Ali Rizvi	Extension NOT recommended as the candidate did not submit the thesis for ITD.
9.	Jawwad Abdullah Butt 02-283162-001	EES, BUKC	PhD ES	Dr. Yasmin Nergis	One year extension granted by the FRC

Annex-IX: Appointment of Examiners for PhD Comprehensive Exams

Sr.	Name (Enrolment #)	Dept., Campus	Program	Supervisor (Co-Supervisor)	Research Theme	Course	Examiner
1.	Haider Shabbir 01-286212-001	EES, BUIC	PhD (Geophysics)	Dr. Muhsan Ehsan	Hydrogeological modelling of shallow active landslides by using Time lapsed current measurement, Jhelum Basin, Pakistan	Advanced Electrical Methods	Dr. Muhsan Ehsan
						Reservoir Characterization	Dr. Muhammad Iqbal Hajana
						Hydrocarbon Exploration Techniques	Dr. Muhsan Ehsan
						Seismic Imaging Techniques	Dr. Muhammad Fahad Mehmood
2.	Rana Faisal Shahzad 01-286212-002	EES, BUIC	PhD (Geophysics)	Dr. M. Iqbal Hajana	The role of salt tectonics In developing structural geometries of the Potwar Fold and Thrust Belt, Pakistan	3D Seismic Attributes for Reservoir Characterization	Dr. Muhammad Iqbal Hajana
						Reservoir Characterization	Dr. Muhammad Iqbal Hajana
						Hydrocarbon Exploration Techniques	Dr. Muhsan Ehsan
						Seismic Imaging Techniques	Dr. Muhammad Fahad Mehmood
3.	Saima Nazir 01-286212-003	EES, BUIC	PhD (ES)	Dr Said Akbar Khan	Comparative analysis of air pollutants and study of their co relation with smog formation in Islamabad	Hazardous Solid Waste Management	Dr Asma Jamil
						Advanced Ecosystem Management	Dr Asma Jamil
						Environmental Monitoring, Sampling and Analysis	Dr Said Akbar Khan
						Natural Resources and Associated Hazards	Dr. Humera Farah