



# FRC Meeting Minutes

15<sup>th</sup> FRC, Faculty of Engineering Sciences  
January 19, 2022

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1. The 15<sup>th</sup> meeting of the Faculty Research Committee of the Faculty of Engineering Sciences (FRC-ES) was held on January 19, 2022, at 0930. The meeting was hosted at Islamabad while members in Lahore and Karachi joined through video link.

## Attendees

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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. Najam Muhammad Amin	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. Imran Siddiqi	Snr. Professor CS Dept., IC (Secretary FRC-ES)

## Opening Remarks

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



## Agenda

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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

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### Item 15.1 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 on the candidates and the approved examiners are listed in **Annex-I**.

Action by: Concerned HoDs

### Item 15.2 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 15.3 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 15.4 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 15.5 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 15.6 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 15.7 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 15.8 Cancellation of the Candidacy of MS Student**

##### **Discussion**

20. HoD E&ES, BUIC, presented the case of Mr. Muhammad Abbas Qamar (01-262181-005) enrolled in the MS Geology program. Dr. Muhammad Zafar, supervisor of the candidate has submitted three unsatisfactory progress reports to the department. Supervisor has also mentioned that the student has remained absent without showing any progress at all. The DRC recommended cancellation of candidacy of the candidate.

##### **Decision**

21. On recommendation of the DRC and in accordance with MS/MPhil Rules, FRC approved the cancellation of candidacy of MS student Mr. Muhammad Abbas Qamar (01-262181-005). Subsequent processing is to be carried out by the department in accordance with the MS/MPhil Rules.

Action by: HoD E&ES, BUIC

#### **Item 15.9 Cancellation of the Candidacy of PhD Scholars**

##### **Discussion**

22. HoD CS, BUIC, presented the case of Mr. Muhammad Waseem (Enrollment # 01-284172-001) enrolled in the PhD (CS) program under the supervision of Dr. Muhammad Muzammal. The house was informed that the student cleared his comprehensive exam in July 2020. In accordance with the PhD rules, the candidate was required to defend his research proposal within one year of having passed the comprehensive exam i.e., by July 2021. The candidate was repeatedly reminded to submit the proposal within the time frame, but no submission was made to the department. The PhD advisory committee also hold a meeting with the student, but he was not able to present any concrete documents or the research proposal. FRC was requested to recommend the cancelation of candidacy of the scholar in accordance with the PhD Rules.



23. PhD Scholar Mr. Yosuf Zia (Enrollment # 01-284132-003) enrolled in the PhD (CS) program under the supervision of Dr. Faisal Bashir, failed to complete his PhD degree requirements within the given time period after approval of the final extension in the program duration by the competent authority. According to the letter issued on 21<sup>st</sup> Sept 2020, the student was given final extension of one year. The student was required to complete all the requirements of the degree in the period that ended in Sept 2021. FRC was requested to recommend the cancelation of candidacy of the scholar in accordance with the PhD Rules.

#### Decision

24. FRC recommended the cancelation of candidacy of PhD scholars Muhammad Waseem (Enrolment # 01-284172-001) and Yosuf Zia (Enrolment # 01-284132-003). Department of CS, BUIC to process the case in accordance with the PhD rules.

**Action by:** HoD CS, BUIC

#### Item 15.10 Extension in Time Bar of PhD Scholars

##### Discussion

25. Nadia Sultan (01-281161-001) is enrolled in the PhD EE program at BUIC under the supervision of Dr. Asif Mahmood Mughal. With the end of Fall 2021, the candidate will complete her 6 years of extended program duration. The thesis of the candidate is presently submitted for the ITD. FRC was requested to grant her one-year extension in the program duration.
26. HoD CS, KC presented the case of PhD scholar Ms. Hajra Masood (02-284151-002) enrolled in the PhD (CS) program under the supervision of Dr. Humera Farooq. The candidate has submitted her thesis for ITD and her thesis is presently under evaluation. The candidate was granted an extension of one year by the FRC and seven years of program duration complete in Fall 2021. FRC was requested to recommend one-year further extension in the program duration to the honorable Rector.
27. Engr. Muhammad Hussain (02-281151-001) is enrolled as PhD scholar at department of EE, BUKC and is working under the supervision of Prof. Dr. Haroon Rasheed. The candidate has published three impact factor journals and two conference papers. The PhD internal thesis defense of the candidate was conducted on 29th Nov 2021 and the candidate is currently working on the compliance report. His one-year extension from FRC expires at the end of Fall 2021. FRC was requested to recommend one-year further extension in the PhD program duration of the candidate to the honorable Rector.
28. HoD SE, IC presented the case of PhD scholar Zulfiqar Ali (01-281151-001) who was granted one year extension by the FRC till the end of Fall 2021. The candidate has submitted his thesis to the department for ITD and has requested for recommendation of one-year extension to the competent authority.
29. HoD EES, KC presented the case of PhD scholar Ms. Shaista Mahmud (02-283161-003) enrolled in the PhD Geophysics program under the supervision of Dr. Salma Hamza. The candidate completed the extended program duration of six years in Fall 2021. The candidate has submitted the first draft of her thesis to the



department. One paper from her PhD research has been accepted for publication in an 'X category' journal. DRC has requested the FRC to grant her one-year extension so that the subsequent processing of thesis can be carried out.

30. Mr. Muhammad Irfan (02-283161-004), enrolled in the PhD Geophysics program at BUKC completed six years of enrolment in Fall 2021 (Supervisor- Dr. Salma Hamza). One paper from his PhD dissertation has been published in an 'X category' journal. The first draft of his thesis is submitted to the department. One year extension was recommended by the DRC for the candidate.

#### **Decision**

31. FRC approved extension of one year in the PhD program duration of Ms. Nadia Sultan (01-281161-001), Ms. Shaista Mahmud (02-283161-003) and Mr. Muhammad Irfan (02-283161-004). Furthermore, FRC approved the recommendation of one-year extension to the honorable Rector for PhD scholars Ms. Hajra Masood (02-284151-002), Engr. Muhammad Hussain (02-281151-001) and Zulfiqar Ali (01-281151-001). Chair FRC stressed that Ms. Shaista Mahmud (02-283161-003) and Mr. Muhammad Irfan (02-283161-004) should appear for the ITD as soon as possible. Decisions on extension of PhD scholars are summarized in **Annex-VIII**.

**Action by:** Concerned HoDs

#### **Item 15.11 Change of Supervisor/Co-Supervisor: PhD Scholars**

##### **Discussion**

32. HoD EE, IC, presented the case of Muhammad Yaseen (01-281201-001) who was admitted to the PhD EE program in Spring 2020. Dr. Muhammad Amin was appointed his co-supervisor in the 13<sup>th</sup> meeting of the FRC (Agenda Item 13.9). The candidate in the exploratory phase changed his research theme and as a function of the intended research area, Dr. Muhammad Aamir was recommended by the DRC to be appointed as the co-supervisor of the candidate.
33. Maryam Iqbal (01-281171-003) was admitted in the PhD EE program at BUIC in Spring 2017. Dr. Asim Ali Shah was appointed as her co-supervisor in the 5th meeting of the FRC (Agenda Item 5.3). Dr. Asim Ali Shah has resigned from BU hence Dr. Junaid Imtiaz was recommended as the new co-supervisor of the candidate.
34. Farrukh Shahzad Ahmed (01-281162-001) is enrolled in the PhD SE program at IC. Dr. Awais Majeed is serving as his principal while Dr. Shahid Nazir Bhatti as the co-supervisor of the candidate. The house was informed that during the recent QA Audit of the PG Programs, concerns were expressed by the audit team on the relevancy of the principal supervisor with the research theme of the candidate. Moreover, the co-supervisor Dr Shahid Nazir Bhatti has not been providing any lead to the scholar for the last 1 year despite several emails. Consequently, DRC has recommended Dr. Tamim A. Khan as the Principal and Dr. Awais Majeed as the co-supervisor of the PhD Scholar Mr. Farrukh Shahzad Ahmed.





35. HoD EES, KC presented the case of Mr. Muhammad Irfan (02-282142-003). The house was informed that during the QA audit of the PG programs, the audit team raised concerns on the relevance of the supervisor (Dr. Mehrab Khan) with the research theme of the candidate. Dr. Mehrab has only one publication in the relevant field with the research scholar Mr. Muhammad Irfan. The said publication is in a Y-category journal from the scholar's ongoing PhD thesis under Dr. Mehrab's supervision. The thesis has been submitted to the department for ITD and the supervisor Dr. Mehrab Khan has expressed his concerns on changing the supervisor at this stage. FRC was requested to recommend the way forward on this case.

#### Decision

36. FRC approved the appointment of Dr. Muhammad Aamir, as the co-supervisor of PhD scholar Muhammad Yaseen (01-281201-001) and Dr. Junaid Imtiaz as the co-supervisor of Ms. Maryam Iqbal (01-281171-003).
37. FRC approved the appointment of Dr. Tamim A Khan as the Principal and Dr. Awais Majeed as the co-supervisor of the PhD Scholar Mr. Farrukh Shahzad Ahmed (01-281162-001).
38. For PhD scholar Mr. Muhammad Irfan (02-282142-003), it was observed that according to the HEC, the supervisor must have a relevant degree or some research publications in the area of research of the PhD scholar. Since Dr. Mehrab Khan was unable to prove his relevancy to the scholar's research area, therefore FRC appointed Dr. Yasmin Nergis (Consent taken) as the supervisor of Mr. Muhammad Irfan. Furthermore, Dr. Mehrab Khan was appointed as the co-supervisor of the candidate along with the current co-supervisor Dr. Muhammad Shafiq.

Action by: Concerned HoDs

#### Item 15.12 Change in the Title of PhD Thesis – PhD Scholar SE Dept. BUIC

##### Discussion

39. HoD SE, BUIC, presented the case of PhD scholar Zufiqar Ali (01-281151-001). Dr. Kashif Naseer was appointed as his Principal supervisor in the 12<sup>th</sup> meeting of the FRC (Agenda Item 12.17) due to absence of his supervisor Dr. Shagufta Henna. After feedback from the supervisor, the candidate updated the title of his research. FRC was requested to approve the change in title of research of the candidate.

SNo.	Name (Enrolment #)	Program	Supervisor (Co-Supervisor)	Title of Thesis
1	Zufiqar Ali 01-281151-001	PhD (SE)	Dr. Kashif Naseer (Dr. Shagufta Henna)	<b>Existing:</b> Live Long End Devices of LoRaWAN! Welcome to Adaptive Data Rate and Multi-Hop Communication



				<b>Recommended:</b> Services Provisioning by Using Intelligent Learning for Long Range Wide Area Network (LoRaWAN)
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#### Decision

40. FRC approved the change of title of research of PhD scholar Zufiqar Ali (01-281151-001). The approved title is listed in the following.

SNo.	Name (Enrolment #)	Program	Supervisor (Co-Supervisor)	Title of Thesis
1	Zufiqar Ali 01-281151-001	PhD (SE)	Dr. Kashif Naseer (Dr. Shagufta Henna)	Services Provisioning by Using Intelligent Learning for Long Range Wide Area Network (LoRaWAN)

**Action by:** HoD SE, BUIC

#### Item 15.13 Ratification of Change of Examiners – MS Thesis Defense

##### Discussion

41. Cases of MS students were presented whose external/internal examiners were approved by the FRC but the examiners could not be available for the thesis defense. Approval for the change of these examiners was granted by Dean (ES) on file. FRC was requested to ratify the change of external examiners.

##### Decision

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

**Action by:** None

#### Item 15.14 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 15.15 Ratification of Appointment of Examiners – MS Thesis Students, SE Dept. BUIC**

##### **Discussion**

45. HoD SE, IC presented the cases of MS students Iqra Batool (01-241201-006) and Marrium Mehmood (01-241201-009). Approval of examiners for the final thesis defence of these students was taken on file (Case No. BUIC/SE/2021/081) from Dean (ES) as the candidates needed to defend the thesis due to their family engagements and job requirements. FRC was requested to ratify the appointments.

##### **Decision**

46. FRC ratified the following appointments of internal and external examiners for the final thesis defense of MS students Iqra Batool (01-241201-006) and Marrium Mehmood (01-241201-009).

<b>S No.</b>	<b>Name (Enrolment #)</b>	<b>Thesis Title</b>	<b>Supervisor</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	Iqra Batool 01-241201-006	Software Fault Prediction Using Deep Learning Algorithms	Dr. Tamim A Khan	Dr. Muhammad Muzammal	Dr. Arslan Shaukat
2	Marrium Mehmood 01-241201-009	Web Application Vulnerability Analysis Using Machine Learning	Dr. Tamim A Khan	Dr. Muhammad Muzammal	Dr. Arslan Shaukat

**Action by:** None

#### **Item 15.16 Ratification of Recommendation of FTD Examiners – PhD Scholar, EE Dept. BUIC**

##### **Discussion**

47. HoD EE, IC presented the case of PhD scholar Samina Rafique (01-281142-001). Her ITD examiners were approved by Pro-Rector RIC vide File No. BUIC/EE/2020/036. Dean (ES) recommended the same examiners for the FTD of the candidate vide OAS letter BU-HO/DES/2021/L/089. FRC was requested to ratify the recommendation.

##### **Decision**

48. FRC ratified the recommendation of following examiners for the FTD of PhD scholar Samina Rafique (01-281142-001).

- External Examiners
  - Dr. Abdul Qayyum Khan, Professor, PIEAS
  - Dr. M. Usman Akram, Associate Professor, CEME NUST
  - Dr. Aamir Akhtar Siddiqui, Senior Quality Control Engineer, NECOP
  - Dr. Ing. Mukhtar Ullah, Professor, FAST NU
- Internal Examiners
  - Dr. Abdul Attayyab Khan, Snr. Asst. Professor, EE-BUKC
  - Dr. Haroon Rasheed, Professor, EE-BUKC



**Action by:** None

#### **Item 15.17 Change of Internal Examiner – MS Thesis EES Dept. BUIC**

##### **Discussion**

49. HoD EES, IC informed the house that Dr. Asif Javed was appointed as the internal examiner for the thesis defense of MS student Bibi Aftab (01-262192-003). Dr. Asif Javed has resigned from BU and DRC requested the appointment of a different internal examiner for the candidate. The details of the candidate are as follows.

S. No.	Name (Enrolment #)	Supervisor	Program	Thesis Title
1	Bibi Aftab 01-262192-003	Dr. Humera Farah	MS (ES)	Mapping Agriculture and Meteorological Droughts Using MODIS and CHIRPS Satellite data; A Case Study of Rainfed Potohar Region, Pakistan

##### **Decision**

50. On recommendation of the DRC, FRC approved the appointment of **Dr. Asma Jamil** as the internal examiner of the candidate Bibi Aftab (01-262192-003).

**Action by:** HoD EES, IC

#### **Item 15.18 Transfer of Supervisor from BUIC to BUKC – MS/PhD Scholars**

##### **Discussion**

51. HoD SE, KC presented the case of faculty member Dr. Amina Jameel who has been transferred from BUIC to BUKC in Fall 2020. She has been supervising two PhD scholars at the department of CS, BUIC. Both the students have submitted their theses for ITD and the salient details of the students are listed in the following table.

S. No.	Name (Enrolment #)	Program	Supervisor	Thesis Title	Thesis Stage
1	Joddar Fatima (01-284152-001)	PhD (CS)	Dr. Amina Jameel	Localization of Vertebrae and Deformity Analysis using Digital Spinal Cord Images	Internal Thesis Defense held on 12 January 2022 at BUIC
2	Syeda Zainab Yousuf Zaidi (01-284152-002)	PhD (CS)	Dr. Amina Jameel	Design Of Deep Learning and Shape Based Models for Tuberculosis Detection using Diagnostic Radiology	Internal Thesis Defense held on 14 January 2022 at BUIC

52. Since both the students are in the final stages of their PhD, FRC was requested to allow Dr. Amina Jameel to continue their supervision from BUKC.



53. A similar case was presented by the HoD CS, BUKC. Dr. Samabia Tehsin was transferred from department of CS, BUIC to department of CS, BUKC in Fall 2021. One PhD and two MS students are under her supervision as detailed in the following.

S. No.	Name (Enrolment #)	Program	Supervisor	Thesis Title	Thesis Stage
1	Shahela Saif 01-284181-002	PhD (CS)	Dr. Samabia Tehsin	Identification of synthetically generated videos using forensic analysis techniques	Candidate successfully defender her research proposal in February 2020. 1 x IF paper has been published while revision for another is submitted. Furthermore, another IF article is submitted to a relevant journal.
2	Muhammad Hamza 01-249201-005	MS (DS)	Dr. Samabia Tehsin	Morphing Attack Detection	Thesis Proposal was accepted in Spring 2021. 2x papers are submitted in IF journals and 80% of thesis write-up has been completed.
3	Muhammad Tajmal 01-243202-015	MS (CS)	Dr. Samabia Tehsin	Postmortem iris Recongition	Proposal defense conducted on 24 December 2021, Supervisor has been providing technical guidance to the student before as well as after the proposal defense.

#### Decision

54. Chair FRC sought comments on the two related agenda items from the house. Members of FRC were of the opinion that all three PhD students are at advanced stages of research. Furthermore, it was also discussed that research ideas are the intellectual property of the individual proposing them. The house agreed that since both Dr. Amina Jameel and Dr. Samabia Tehsin are still permanent faculty members of BU, they may continue to act as principal supervisors of the respective MS/PhD candidates.

Action by: None

#### Item 15.19 Appointment of Examiners for PhD Comprehensive Exam

#### Discussion

55. HoD CS, IC presented the cases of students enroled in the PhD (Mathematics) program (**Annex-X**). The candidates 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 their PhD Comprehensive Exam.



### Decision

56. 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-X**.

Action by: HoD CS, IC

### Closing Remarks

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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

February 24, 2022

#### Annex-I: Appointment of Examiners for MS Thesis Defense

##### Appointment of Examiners for MS Thesis Defense: CE Department, Islamabad Campus

S No.	Name (Enrolment #)	Thesis Title	Program	Supervisor (Co-Supervisor)	Internal Examiner	External Examiner
1	Ayesha Shah 01-242192-002	Approach of text summarization for legal case judgements	MS CE	Dr. Muhammad Asfand-e-yar	Dr. Imran Siddiqi	Dr. Amanullah Yasin
2	Abdullah Waqar 01-242202-001	Weapons Detection System for Surveillance and Security	MS CE	Dr. Shehzad Khalid	Dr. Imran Fareed	Dr. Usman Akram
3	Hoor Ul Ain Tahir 01-242202-003	Aerial imagery pile burn detection using deep learning	MS CE	Dr. Shehzad Khalid	Dr. Sumaira Kausar	Dr. Arslan Shaukat
4	Rizwan Kiyani 01-242202-006	Automatic Detection of Hate Speech – Ethnicity based Racism	MS CE	Dr. Mohammad Najam Ul Islam	Dr. Faisal Bashir	Dr. Sajjad Ahmad Madani
5	Usama Razzaq 01-242202-009	Hardware Acceleration of Genome Sequencing Using FPGA	MS CE	Dr. Mohammad Najam Ul Islam	Dr. Atif Raza Jafri	Dr. Muhammad Awais

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

<b>S No.</b>	<b>Name (Enrolment #)</b>	<b>Thesis Title</b>	<b>Program</b>	<b>Supervisor (Co-Supervisor)</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	Abdul Razzaq Khan 01-243201-001	Formal Specification and Verification of Coap Protocol Using Pluscal-2	MS (CS)	Dr. Sabina Akhtar	Dr. Saba Mahmood	Dr. Humaira Ashraf
2	Hasan Ali 01-243201-003	CoAP based proxy mobile IPv6 over Quic for IOT	MS (CS)	Dr. Moneeb Gohar	Dr. Kashif Naseer	Dr. Muazzam A. Khan Khattak
3	Hassan Sajjad 01-243201-004	Digital Paleographic analysis for classification of writing styles	MS (CS)	Dr. Imran Siddiqi	Dr. SumairaKausar	Dr. Farhan Riaz
4	Negarish Mushtaq 01-243201-007	Criminal Tendency Detection from Facial Images	MS (CS)	Dr. Momina Moetesum	Dr. SumairaKausar	Dr. Farhan Riaz
5	Osama Sohail 01-243201-008	Detection of Malicious Flows in the Software- Defined Networks by Using Statistical Flow Analysis Based Intrusion Detection System	MS (CS)	Dr. Muhammad Asfand E Yar	Dr. Moazzam Ali	Dr. Tassawar Iqbal
6	Qadeer Hashir 01-243201-009	Detecting misinformation at social media using supervised learning	MS (CS)	Dr. Muhammad Asfand E Yar	Dr. Saba Mahmood	Dr. Fawad Hussain
7	Syed Zain Abbas 01-243201-011	Urdu News Article Recommendation Model	MS (CS)	Dr. Arif Ur Rahman	Dr. Ghulam Ali Mirza	Dr. Muhammad Nadeem
8	Mubbashir Adnan 01-243201-014	Adaptive Traffic Monitoring Using eBPF	MS (CS)	Dr. Faisal Bashir	Dr. Kashif Naseer	Dr. Muazzam A. Khan Khattak
9	Imran Hussain 01-243201-015	Optimal Resource Management for Next Generation Networks	MS (CS)	Dr. Saleem Aslam	Dr. Moneeb Gohar	Dr. Majid Iqbal Khan
10	Anza Tahrim Abbasi 01-249201-002	Low illumination object detection using deep learning techniques	MS (DS)	Dr. Sumaira Kausar	Dr. Imran Siddiqi	Dr. Khurram Khurshid



11	Hafiz Muhammad Ehtisham Fared 01-249201-003	Fake News Identification Using Machine Learning	MS (DS)	Dr. Arif Ur Rahman	Dr. Momina Moetesum	Dr. Kifayat Ullah Khan
12	Muhammad Hamza 01-249201-005	Morphing Attack Detection	MS (DS)	Dr. SamabiaTehsin	Dr. Imran Siddiqi	Dr. Fahad Tahir
13	Muhammad Imran 01-249201-006	Deepwater Object Recognition for Marine Using Convolutional Neural Network	MS (DS)	Dr. Muhammad Muzammal	Dr. Arif Ur Rahman	Dr. Muhammad Nadeem
14	Muhammad Nofil Bashir 01-249201-007	Deep Learning Based Kinship Verification	MS (DS)	Dr. Momina Moetesum	Dr. Sumaira Kausar	Dr. Khurram Khurshid
15	Saima Safdar 01-249201-011	Dyslexia Diagnosis in Children using Machine Learning	MS (DS)	Dr. SumairaKausar	Dr. Sabina Akhtar	Dr. Amanullah Yasin
16	Sameea Naeem 01-249201-014	Exploiting Transliterated Words for Finding Similarity in Inter-language News Articles	MS (DS)	Dr. Arif Ur Rahman	Dr. Fatima Khalique	Dr. Asim Munir
17	Syed Mujtaba Haider 01-249201-017	Tracking and Identification of Players	MS (DS)	Dr. Arif Ur Rahman	Dr. Imran Siddiqi	Dr. Arsalan Shaukat
18	Abdul Basit Mughal 01-249201-018	Person Identification through Gait Recognition Model	MS (DS)	Dr. Arif Ur Rahman	Dr. Sumaira Kausar	Dr. Muhammad Usman Akram
19	Abdul Manan Rasheed 01-247201-001	A Machine Learning Based Approach Towards Trust Related Attack Detection in Social IoT	MS (IS)	Dr. Saba Mahmood	Dr. Faisal Bashir	Dr. Humaira Ashraf
20	Azaz Tahir 01-247201-003	Personality Prediction System Using Social Media Platform	MS (IS)	Dr. Faisal Bashir	Dr. Saba Mahmood	Dr. Amanullah Yasin
21	Javaid Wahab 01-247201-007	A cyber threat intelligence system for malicious domain names	MS (IS)	Sajjad Hussain Shah	Dr. Ibrahim Tariq Javed	Dr. Saleem Iqbal
22	Nasir Ali 01-247201-010	Hints-Based Ip to Geolocation Mapping Using Multiple Measurement Frameworks	MS (IS)	Dr. Faisal Bashir	Dr. Moneeb Gohar	Dr. Muhammad Shiraz

23	Rizwan Saeed 01-247201-012	Scrutinizing Targeted User Using Social Applications	MS (IS)	Dr. Faisal Bashir	Dr. Moneeb Gohar	Dr. Majid Iqbal Khan
24	Sami Ullah 01-247201-013	Cyber Competence & OSINT: The Development of Cyber-Crime Mitigation using RSS-Crawler Enhancement	MS (IS)	Dr. Faisal Bashir	Dr. Muhammad Najam Ul Islam	Dr. Nazir Ahmed Malik
25	Faheem Iqbal 01-245201-002	Advanced Message Queuing Protocol Transported Over Quic	MS (TN)	Dr. MoneebGohar	Dr. Moazzam Ali	Dr. Muhammad Shiraz

### 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	IRFANULLAH 01-244202-009	Machine to machine (M2M) communication for 5G Internet of Things (IOTs) in smart cities.	MS EE	Dr. Saleem Aslam	Dr. Adil Ali Raja	Dr. Amir Habeeb
2	WAQAR AHMED 01-244202-020	Optimal Design of Hybrid Renewable Energy System (HRES) for institutional building. A Case Study of University Campus.	MS EE	Engr. Nadia Imran	Dr. Asad Waqar	Dr. Intisar Ali Sajjad
3	Muhammad Sharjeel Ali 01-244202-014	Techno-Economic Analysis of Hybrid Renewable Energy Based Electricity Supply to Gwadar, Pakistan.	MS EE	Engr. Faheem Haroon/ Engr. Syed Umaid Ali	Dr. Asad Waqar	Dr. Intisar Ali Sajjad
4	Yasir Basheer 01-244202-021	Planning and Analysis of Microgrids for Cement Industry.	MS EE	Dr. Asad Waqar	Engr. Syed Umaid Ali	Dr. Muhammad Zahid
5	Muhammad Ammar Hafeez 01-244202-011	Application of FACT's Devices in Transmission Networks under Demand Uncertainty for Performance Improvement	MS EE	Dr. Asad Waqar	Engr. Syed Umaid Ali	Dr. Muhammad Zahid
6	MUHAMMAD WAQAS YOUSUF KHAN 01-244202-016	Techno-economic analysis of counter strategies to control the overloading of distribution networks in the context of EVs' charging infrastructures.	MS EE	Dr. Asad Waqar	Engr. Faheem Haroon	Dr. Muhammad Aamir
7	Amjad Khalil Abid 01-244202-004	Techno-economic feasibility of installing PV based Electric vehicle charging stations in public parking lots for Pakistan	MS EE	Engr. Faheem Haroon/ Engr. Syed Umaid Ali	Dr. Muhammad Najam ul Islam	Dr. Muhammad Aamir
8	Fazal Muqeeem 01-244202-008	Dual Band 4-Element MIMO Antenna for 5G Mobile Applications	MS EE	Dr. Imtiaz Alam/ Dr. Adil Ali Raja	Dr. Saleem Aslam	Dr. Yasar Amin
9	M Imran Munawar 01-244201-015	An efficient energy prediction model for solar-energy-powered system using AI Techniques	MS EE	Dr. Imtiaz Alam	Dr. Imran Fareed Nizami	Dr. Abdul Rauf Bhatti
10	Noman Khan 01-244202-018	Optimal Power Usage Scheduling For Efficient Energy Management In Smart Grid	MS EE	Dr. Imtiaz Alam	Dr. Asad Waqar	Dr. Abdul Rauf Bhatti

11	Muhammad Umar Zafar 01-244202-024	Analysis of hybrid energy for electric vehicles operated by wind and solar	MS EE	Dr. Imtiaz Alam	Engr. Faheem Haroon	Dr. Syed Haider
12	Anisa Zafar 01-244202-027	Resource Management for UAVs in 6G Networks	MS EE	Dr. Saleem Aslam	Dr. Muhammad Najam ul Islam	Dr. Zeeshan Kaleem
13	Arsalan Nazir 01-244202-005	Channel modeling and link budget analysis for mmWave and Terahertz Systems for Future Networks.	MS EE	Dr. Najam ul Islam/ Engr. Hassan Danish	Dr. Saleem Aslam	Dr. Amir Habeeb
14	Sami Ahmad 01-244202-026	Simulation and Analysis of mm-Wave links	MS EE	Dr. Imtiaz Alam / Engr. Hassan Danish	Dr. Adil Ali Raja	Dr. Ali Imran Najam
15	Mujtaba Ali 01-244202-025	Collision Probability Estimation in 5G Networks	MS EE	Dr. Junaid Imtiaz	Dr. Imtiaz Alam	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	Ahsan Shakeel (01-262202-001)	DEPOSITIONAL AND DIAGENETIC SETTING OF LOCKHART LIMESTONE, NAMMAL GORGE, WESTERN SALT RANGE, PAKISTAN	MS GEO	Ms. Maryam Saleem	Dr. Tahseenullah Khan	Dr. Abbas Ali Naseem
2	Asif Alam (01-262202-002)	Origin of multiphase dolomitization in the Kingriali Formation, Nammal Gorge Section Salt Range, Pakistan	MS GEO	Ms. Maryam Saleem	Dr. Muhammad Zafar	Mr. Mamoon Siyar
3	Israr Ullah (01-262202-003)	GEOCHEMISTRY OF KUMRAT GRANITE, UPPER DIR, KHYBERPAKHTUNKHWA, PAKISTAN	MS GEO	Prof. Dr. M. Zafar	Dr. Tahseenullah Khan	Dr. Muhammad Sajid
4	Mehboob Ul Haq Abbasi (01-262202-004)	Geochemical analysis and source rock evaluation of the Paleocene formations in Kohat-Sub Basin, Pakistan	MS GEO	Dr. Muhsan Ehsan (Mr. Tassawar Hayat)	Dr. M. Fahad Mehmood	Dr. Abid Ali
5	Muhammad Muneer (01-262202-005)	Assessment of Groundwater Intrinsic Vulnerability Using GIS-Based Drastic Method in Southern Part of District Karak, Khyber Pakhtunkhwa, Pakistan	MS GEO	Mr. Mumtaz Ali Khan  (Dr. Anwar Qadir)	Mr. Tausif Ahmad	Dr. Khalid Latif
6	Muneeb Ul Islam (01-262202-007)	Comparative analysis of Microfacies assemblage and reservoir characterization of the Samana Suk Formation, Khyber Pakhtunkhwa, Pakistan	MS GEO	Dr. Muhsan Ehsan (Mr. Mumtaz Ali Khan)	Dr. Muhammad Zafar	Dr. Abid Ali
7	Naqeeb Ullah (01-262202-008)	Physio-Mechanical Properties and Petrographic Analysis of the Shagai Formation, Shagai area, KPK, Pakistan	MS GEO	Mr. Masood Anwar	Mr. Mumtaz Ali Khan	Mr. Aqeel Gohar
8	Malik Noman Ashraaf (01-262202-009)	Geochemical analysis and source rock evaluation of Paleocene Ranikot Formation of Kirthar Fold Belt, Lower Indus Basin, Pakistan	MS GEO	Dr. Muhsan Ehsan (Mr. Tassawar Hayat)	Dr. M. Fahad Mehmood	Dr. Munawar Shah
9	Sajid Iqbal (01-262202-010)	PETROLOGY AND ECONOMIC MINERAL INVESTIGATION IN BUNER GAH AREA, CHILAS, PAKISTAN	MS GEO	Prof. Dr. Tahseenullah Khan	Dr. Muhammad Zafar	Dr. Abid Ahmad

10	Shakir Ullah Khattak (01-262202-011)	TIME-LAPSE SALINITY INTRUSION STUDIES IN DISTRICT KARAK USING REMOTE SENSING (LANDSAT DATA 1990-2020) AND ELECTRICAL RESISTIVITY SURVEYS	MS GEO	Mr. Mumtaz Ali Khan (Mr. M. Waqar Azeem)	Dr. Muhsan Ehsan	Dr. Anwar Qadir
11	Tayyab Maqsood Butt (01-262202-012)	STATIC RESERVOIR MODELING OF MIANO AREA, CENTRAL INDUS BASIN, PAKISTAN	MS GEO	Mr. Adeeb Ahmed (Mr. Zubair)	Dr. Muhsan Ehsan	Mr. Qadeer Ahmad
12	Abdalle Dahir Yusuf (01-262202-013)	PROVENANCE STUDY OF THE NAGRI FORMATION OF THE SIWALIK GROUP, KALLAR SYEDAN SECTION, RAWALPINDI, PAKISTAN	MS GEO	Prof. Dr. Tahseenullah Khan	Mr. Saqib Mehmood	Dr. Asghar Ali
13	Hasnain Ibrahim (01-262202-014)	Comparative Analysis of Sedimentological Characteristics of the Lockhart Limestone in Upper Indus Basin and Hazara Basin, Pakistan	MS GEO	Dr. Muhsan Ehsan (Mr. Mumtaz Ali Khan)	Mr. Tausif Ahmad	Dr. M. Irfan Ehsan
14	AIMAN ALI (01-262202-015)	Soil and Irrigation Water Quality Assessment in Agricultural Fields in Vicinity of Khanpur Dam, Pakhtunkhwa	MSES	Dr. Asma Jamil	Dr. Said Akbar Khan	Dr. Hamid Iqbal
15	AISHA SHER ALAM KHAN (01-262202-016)	A proposed IOT-Enable Smart Waste Bin Management System and Efficient Route Selection	MSES	Syed Umair Ullah Jamil (Dr. Kashif Naseer Qureshi)	Dr. Asma Jamil	Dr. Mazhar Iqbal
16	AMBER NAZ (01-262202-017)	Financial evaluation of circular plastic economy within informal sector for municipal waste	MSES	Dr. Asma Jamil (Dr. Hamid Iqbal)	Dr. Humera Farah	Dr. Waqar un Nisa
17	KHANSA (01-262202-019)	Biodegradation of Petrochemicals by Bacterial strains Isolated from Oil Contaminated Soil.	MSES	Syed Umair Ullah Jamil	Dr Said Akbar khan	Dr. Waqar un Nisa
18	RABBIA SHAKEEL (01-262202-020)	Exposure to heavy metals and consequent health risks among e-waste recyclers in Rawalpindi Pakistan	MSES	Ms. Fiza Sarwar (Dr Waqar un Nisa)	Dr. Humera Farah	Mr. Abdul Hadi
19	ROHA MURTAZA (01-262202-021)	Assessment of Drinking Water Quality in Selected Areas of Gujrat, Pakistan	MSES	Dr. Said Akbar Khan	Syed Umair Ullah Jamil	Dr. Sadiqullah Khan
20	SABA ZEENAT (01-262202-022)	Pulmonic Health Impairments Among Poultrymen in Shorkot, Pakistan	MSES	Ms. Fiza Sarwar	Dr. Asma Jamil	Dr. Waqar un Nisa

21	SHAMA IBRAHIM (01-262202-023)	Occupational Exposure Assessment of Heavy Metals Among Construction Workers in Rawalpindi, Pakistan	MSES	Ms. Fiza Sarwar (Dr Waqar un Nisa)	Dr. Asma Jamil	Mr. Abdul Hadi
22	SIDRA TUL MUNTAHA (01-262202-024)	Construction of Lab Scale Wetlands for Bioremediation of wastewater using Microalgae.	MSES	Syed Umair Ullah Jamil	Dr. Said Akbar khan	Dr. Waqar un Nisa
23	SYED SHAHBAZ ALI (01-262202-025)	Irrigation Water Quality Assesment of Expanding Urbanization in District Rawalpindi through Remote Sensing	MSES	Dr. Said Akbar Khan (Ms. Asia Munir)	Ms. Fiza Sarwar	Dr. Sadiqullah khan
24	SYEDA HIJAB ZEHRA RIZVI (01-262202-026)	Extraction Of Activated Carbon from Biomass And Its Application For The Removal Of Chromium IV From Water	MSES	Dr. Said Akbar Khan (Dr. Muhammad Arshad)	Syed Umair Ullah Jamil	Dr. Mazhar Iqbal
25	WARDAH SAEED (01-262202-034)	Dynamics of material flows in waste streams of municipal solid waste management cycle	MSES	Dr. Asma Jamil (Dr. Hamid Iqbal)	Syed Umair Ullah Jamil	Dr. Sajida Rasheed
26	KAINAT NAFEES (01-262202-036)	Landscape Transformation & Vegetation Range Shift in The Alpine Ecosystem Under the Prevailing Climate Changing Scenario in Hkh Region of Pakistan	MSES	Dr. Said Akbar Khan (Dr. Muhammad Qasim)	Dr. Humera Farah	Dr. Said Muhammad

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

<b>SNo.</b>	<b>Name (Enrolment #)</b>	<b>Thesis Title</b>	<b>Program</b>	<b>Supervisor (Co-Supervisor)</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	MALIK ABDUL SAMI (01-241201-008)	Forecasting IoT Based System Faults: A Machine Learning Way To Predictive Maintenance.	MS (SE)	Dr. Tamim A Khan	Dr. Muhammad Muzammil	Dr. Hammad Afzal
2	MUHAMMAD ZUBAIR ASLAM (01-241201-019)	Android Malware Detection Using the deep Learning techniques.	MS (SE)	Dr. Tamim A Khan	Dr.Kashif Sultan	Dr. Usman Qamar
3	MUHAMMAD KASHIF TAJ (01-241201-012)	Real estate values prediction using machine earning techniques	MS (SE)	Dr.Kashif Sultan	Dr. Adeel M Syed	Dr. Khalid Iqbal



**Appointment of Examiners for MS Thesis Defense CS Department, Karachi Campus**

<b>SNo.</b>	<b>Name (Enrolment #)</b>	<b>Thesis Title</b>	<b>Program</b>	<b>Supervisor (Co-Supervisor)</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	Muhammad Shoaib Omer 02-243201-011	Harris' Hawks Optimization Tuned Density-Based Clustering for Classification of High Dimensional Dataset	MS(CS)	Dr. Kashif Hussain	Dr. Samabia Tehseen	Dr. Nadeem Mahmood
2	Sumera Rounaq 02-243192-011	Detection of Covid-19 cases using GAN (Generative Adversarial Network) Based Architecture	MS(CS)	Dr. Ghulam Muhammad	Dr. Raheel Siddiqi	Dr. Yawar Rehman
3	Sarah Khan 02-243192-013	Deep Learning-Based Diabetic Eye Disease Detection	MS(CS)	Dr. Ghulam Muhammad	Dr. Zakria jamali	Prof. Dr. Aftab Ahmed

**Appointment of Examiners for MS Thesis Defense SE Department, Karachi Campus**

<b>S No.</b>	<b>Name (Enrolment #)</b>	<b>Thesis Title</b>	<b>Program</b>	<b>Supervisor (Co-Supervisor)</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	Ramsha Mashood (02-241191- 015)	Data anomaly detection in maritime traffic management using deep learning	MS (SE)	Dr. Sohaib Ahmed	Dr. Zakria Jamali	Dr. Saood Zia
2	Hafsa Abbas (02-241192-012)	Performance Analysis of Deep Learning Approach for Classifying DDoS Attacks from Benign Network Traffic	MS (SE)	Dr. Osama Rehman	Dr Kashif Hussain Talpur	Dr. Rehan Qureshi

### 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 ADEEL IZHAR (03-243192-007)	Machine Learning Framework for Identification Of Mutation In Gene Sequences To Detect Cancer Progression	MSCS	Asghar Ali Shah	Dr. Muhammad Asim Qureshi	Dr. Sheraz Naseer
2.	RIDA FATIMA (03-243192-012)	Multi-Criteria Decision Analysis to Implement E-Learning at Higher Education Institutions	MSCS	Dr. Abdul Hafeez	Dr. Saira Gillani	Dr. Ansar Saddique
3.	WALEED UR REHMAN (03-243192-016)	Emotion Aware Recommender System	MSCS	Dr. Ghulam Mustafa (Mr. Numan Aslam)	Dr. Zia ul Rehman	Dr. Adnan Nabeel Qureshi
4.	ATIF BASHIR (03-243201-002)	Face Forensics Using Neural Networks	MSCS	Dr. Iram Noreen	Dr. Ghulam Mustafa	Dr. Farukh Zeeshan
5.	MUHAMMAD ABDULLAH SHAHZAD (03-243201-009)	Dysplasia Detection Using Machine Learning Techniques	MSCS	Dr. Ghulam Mustafa (Mr. Numan Aslam)	Dr. Iram Noreen	Dr. Adnan Nabeel Qureshi
6.	MUHAMMAD WAQAS ANJUM (03-243201-010)	A Novel Image Encryption Scheme Using Chaotic System	MSCS	Dr. Zia ul Rehman	Dr. Khurram Ehsan	Dr. Sagheer Abbas
7.	USMAN AMJAD (03-243201-012)	Signature Verification Using Deep Learning	MSCS	Dr. Iram Noreen	Dr. Muhammad Asim Qureshi	Dr. Tayyaba Anees
8.	WAJID ALI (03-243201-021)	Human Activity Recognition from Sensor Data	MSCS	Dr. Iram Noreen	Dr. Khurram Ehsan	Dr. Farukh Zeeshan

**Annex-II: Appointment of Examiners for PhD Proposal Defense**

<b>SNo.</b>	<b>Name (Enrolment #)</b>	<b>Program</b>	<b>Research Title</b>	<b>Supervisor (Co-Supervisor)</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
1	Waqar Khalid 01-281202-001	PhD CE, BUIC	Image fusion, surveillance tracking and pattern recognition	Dr. Shehzad Khalid	Dr. Momina Moetesum	Dr. Khurram Khurshid Dr. Arsalan Shaukat
2	Abeer Iftikhar 01-284202-001	PhD CS, BUIC	Security, Trust and User Authentication Solutions By Using Threat Detection and Prevision Methods For Smart Cities Net works	Dr. Kashif Naseer	Dr. Ibrahim Tariq	Dr. Zahid Khan Dr. Naveed Riaz
3	Amir Ali 01-284202-002	PhD CS, BUIC	Psychoeducational assessment and assistance for early age dyslexia using intelligent techniques	Dr. SumairaKausar	Dr. Imran Siddiqi	Dr. Ayaz Hussain Dr. Farhan Riaz
4	Faisal Asad Ur Rehman 01-284202-003	PhD CS, BUIC	Sustainable Transportation in Smart Cities	Dr. Muhammad Muzzamal	Dr. Sumaira Kausar	Dr. Usman Qamar Dr. Waseem Shahzad
5	Sidra Siddiqui 01-281202-002	PhD SE, BUIC	A Novel Obfuscation Framework to Detect, Test and Effectively Prevent Intrusion of Obfuscated Android Malwares	Dr. Tamim A Khan	Dr. Faisal Bahir	Dr. Majid Iqbal Dr. Humaira Ashraf

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

<b>SNo.</b>	<b>Name</b>	<b>Designation</b>	<b>Affiliation</b>	<b>Research Area(s)</b>	<b>Sponsored By</b>
1	Dr. Tehmina Amjad	Assistant Professor	IIUI	Scientometrics, Bibliometrics, Information Retrieval, Data Mining, Social Network Analysis and Mining, Machine Learning, Data Grids.	CS, BUIC
2	Dr. Bushra Bashir	Assistant Professor	FJWU	Wireless Communications	CS, BUIC
5	Dr. Sadaf Abdul Rauf	Assistant Professor	FJWU	NLP, Machine Learning	CS, BUIC
6	Dr. Muhammad Zahid Khan	Assistant Professor	Malakand University	Wireless Sensor Networks	CS, BUIC
7	Dr. Akhtar Jamil	Assistant Professor	FAST -NU	Deep learning, Machine Learning, Computer vision, Data Science Remote sensing, Pattern Recognition, NLP	CS, BUIC
8	Dr. Eng. Muhammad Sajjad Khan	Assistant Professor	IIUI	IoT, Radio Resource Management, Machine Learning, Edge/Fog Computing	CS, BUIC
9	Dr. Wasi Haider Butt	Assistant Professor	CEME, NUST	Application of Artificial Intelligence on Software Engineering, Big Data, Social Network Analysis, Databases	CS, BUIC
10	Dr. Mian Muhammad Waseem Iqbal	Assistant Professor	MCS, NUST	Information Security, Computer Forensics	CS, BUIC
11	Dr. Usman Qayyum	Director (AI)	NECOP	Artificial Intelligence, Computer Vision	CS, BUIC
12	Dr. Naveed Hussain	Assistant Professor	University of Lahore	Data Mining, Machine Learning, Natural Language Processing, Data warehousing, Opinion Mining, and Sentimental Analysis	CS, BULC
13	Dr. Muhammad Hamid	Assistant Professor	UVAS	Intelligent Recommender and Decision Support System	CS, BULC
14	Dr. Ahmad Hassan Butt	Associate Professor	Minhaj University Lahore	Machine Learning	CS, BULC
15	Dr. Muhammad Nadeem Iqbal	Assistant Professor	University of Lahore	Cryptography, Multimedia Encryption, Computer Graphics, Image Processing	CS, BULC
16	Dr. Syeda Binish Zahra	Assistant Professor	Lahore Garrison University	Artificial Intelligence	CS, BULC

17	Dr. Faiza Iqbal	Assistant Professor	University of Lahore	Machine Learning and Knowledge-based Communication Systems	CS, BULC
18	Dr. Hamad-ur-Rahim Awan	Associate Curator	Pakistan Museum of Natural History	Geology	EES, BUIC
19	Dr. Muhammad Murtaza	Deputy Manager	Pakistan Science Foundation	Geology	EES, BUIC
20	Dr. Muhammad Hassan Agheem	Professor	Centre For Pure & Applied Geology, University of Sindh	Environmental Geology and hydrology	EES, BUKC
21	Dr. Ghulam Murtaza	Incharge	PCRWR	Hydrology	EES, BUKC
22	Dr. Faizan-ur-Rehman Qaisar	Assistant Professor	COMSATS Institute of Information Technology Abbottabad	Hydro-geological Analysis	EES, BUKC
23	Dr. Akhtar Hussain Markhand	Assistant Professor	Centre For Pure & Applied Geology, University of Sindh	Geology, Geochemistry	EES, BUKC
24	Dr. Nusrat Begum Jalbani	Senior Scientific Officer	PCSIR	Environmental Science/ Analytical Chemistry	EES, BUKC
25	Dr. AAmir Alamgir	Assistant Professor	Institute of Environmental Studies, University of Karachi	Environmental Sciences	EES, BUKC
26	M. Ghufuran	Chief Chemist	EPA	Environmental Sciences	EES, BUKC
27	Nadir Bukash	Scientific Officer	Fuel Research Center-PCSIR	Environmental Sciences	EES, BUKC
28	Shahid Bhutto	Senior Scientific Officer	Center for Environmental Studies (CES) PCSIR Lab.	Environmental Sciences	EES, BUKC
29	Dr. Muwahida Liaquat	Associate Professor	CEME, NUST	Control Systems, AI and Automation	EE, BUIC
30	Dr. Hamid Jabbar	Associate Professor	CEME, NUST	Mechatronics System Design, Low-power Energy Harvesting	EE, BUIC
31	Dr. Ammar Hasan	Associate Professor	SEECs, NUST	Control Systems, Electronic Converters	EE, BUIC
32	Dr. Shahzaib Tahir	Associate Professor	NUST	Cloud security	SE, BUIC
33	Dr. Hasan Tahir	Assistant Professor	NUST	Cryptography, information security management, computer security.	SE, BUIC
34	Dr Abdul Zahid Khan	Assistant Professor	IIUI	Technology management	SE, BUIC

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

SNo.	Name	Designation	Affiliation	Post-PhD Experience	Research Area(s)	Sponsored By
1	Prof. Ebrahim Momoniat	Professor	Professor of Applied Mathematics, University of Johannesburg	20+years	Fluid Dynamics	CS, BUIC
2	Dr. Haito Qi	Professor	School of Mathematics and Statistics Shandong University	12 years	Fractional Calculus: Models & Applications, Non-Newtonian Fluid Mechanics, Microflow, Heat and Mass Transfer	CS, BUIC
3	Prof. Kristian Etienne Einarsrud	Professor	Department of Materials Science and Engineering, Berg, 306 B, Gløshaugen, NTNU, Norway	8+years	Aluminium reduction cell flow.	CS, BUIC
4	Dr. Mustafa Bayram	Professor	Biruni University, Turkey	10+years	Fluid Dynamics	CS, BUIC
5	Dr. Ali Akgul	Professor	Siirt University Turkey	6 +years	Applied Mathematics/Fluid Mechanics	CS, BUIC
6	Dr. Dumitru Vieru	Professor	Department of Mechanical Engineering, Technical University of Iasi, Romania	20+years	Fluid Dynamics	CS, BUIC
7	Dr. Guoqian Chen	Professor	College of Engineering, Peking University, Beijing, China	20+years	Fluid Dynamics	CS, BUIC
8	Dr. Lihao Zhao	Associate Professor	Department of Engineering Mechanics, Tsinghua University, Beijing, China.	10 years	Fluid Mechanics	CS, BUIC
9	Dr. Sajjid Nazir	Lecturer	Glasgow Caledonian University, UK	9 years	Multimedia communications over mobile IP wireless networks	CS, BUIC
10	Dr. Kamaldeen Olakunle Leif, Omosanya	Associate Professor	Norwegian University of Science and Technology (NTNU), Trondheim, Norway	7+ years	Geologic and geophysical interpretation of varied structural and stratigraphic domains	EES, BUIC
11	Dr. Nordiana Mohd Muztaza	Associate Professor	School of GeoPhysics Universiti Sains Malaysia 11800 USM,	8 years	Engineering and environmental problem Groundwater Mineral Exploration	EES, BUKC

			Pulau Pinang Malaysia		Landslide Geo-archaeology	
12	Dr. You Liang Ji	Professor	China University of Petroleum, Beijing	19 years	Sequence Stratigraphy, Reservoir Geology Reservoir Sedimentology	EES, BUKC
13	Dr. Haylay Tsegab	Senior Lecturer	Universiti Teknologi PETRONAS, Malaysia	5 years	Geosciences	EES, BUKC
14	Dr. Luis Carlos Belalcazar Ceron	Associate Professor	Department of Chemical and Environmental Engineering, Universidad Nacional de Colombia, campus Bogotá	11 years	Environmental Engineering	EES, BUKC
15	Prof. Dr. Cem ŞENSÖĞÜT	Professor	Head of Department for Occupational Health & Safety, Dumlupınar Univ, Turkey	27 years	Environmental Sciences	EES, BUKC
16	Dr. Irfan Khan	Assistant Professor	Texas A&M University College Station, Electrical and Computer Engineering.	3 years	Power Systems, AI, Intrusion detection, Renewable energy.	EE, BUIC
17	Dr. Mithulan Nadarajah	Associate Professor	University of Queensland, Brisbane, Australia	19 Years	Power System Stability and Dynamics, Stability Challenges in Renewable Energy Integration, Stability Challenges in EV and community energy storage integration	EE, BUIC
18	Dr. Abdul Wahab Korai	Senior Engineer	General Electric Energy	3 Years	Power Systems, Transmission Grids, Distributed Generation, Renewable Energy	EE, BUIC



### Annex-V: Recommendation of Foreign Evaluators for PhD Candidates

SNo.	Name	Dept.	Program	Supervisor	Theis Title	Recommended Foreign Evaluators
1.	Ms. Zainab Yousaf 01-284152-002	CS, BUIC	PhD CS	Dr. Amina Jameel	Design Of Deep Learning and Shape Based Models for Tuberculosis Detection Using Diagnostic Radiology	Dr. Mohamed-ChakerLarabi Dr. Sungho Oh Dr. Imran Khan Niazi Dr. Seungmin Rho
2.	Ms. Joddatt Fatima 01-284152-001	CS, BUIC	PhD CS	Dr. Amina Jameel	Localization of Vertebrae and Deformity Analysis using Digital Spinal Cord Images	Dr. Mehmoood Akhtar Dr. Sungho Oh Dr. Seungmin Rho Dr. Constantino Carlos Reyes Aldasoro
3.	Hina Gul 01-283182-001	CS, BUIC	PhD Maths	Dr. Muhammad Ramzan	Impact of Cattaneo-Chirstov Heat Flux in Newtonian and Non-Newtonian Nanofluid Flows	Dr. Dumitru Vieru Dr. Mustafa Bayram Dr. Noor FadiyaMohd Noor Dr. Guoqian Chen
4.	Naila Shaheen 01-283181-001	CS, BUIC	PhD Maths	Dr. Muhammad Ramzan	Boundary Layer Flows of NanoFluid Over A Stretching Surface With Chemical Reaction	Dr. Ali Akgul Dr. Dumitru Vieru Dr. Haitao Qi Dr. O. D. Makinde
5.	Saima Riasat 01-283181-002	CS, BUIC	PhD Maths	Dr. Muhammad Ramzan	Flow Due to Rotating Discs	Dr. Ebrahim Momoniat Dr. Kristian Etienne Einarsrud Dr. O. D. Makinde Dr. Lihao Zhao
6.	Hajra Masood 02-284151-002	CS, BUKC	PhD CS	Dr. Humera Farooq	Vision base gait recognition robust to appearance and view variance	Dr. Mohamed-Chaker Larabi Dr. Shengxiang Yang Dr. Malek Mouhoub Dr. Cuneyt Guzelis
7.	Nadia Sultan 01-281161-001	EE, BUIC	PhD EE	Dr. Asif Mahmood Mughal / Dr. Muhammad Najam ul Islam	Optimal Feedback Linearization Control Design for Postural Stability and Biomechanical Sit to Stand Movement	Dr. Valentina Emilia Balas Dr. Chengxi Liu Dr. Cuneyt Guzelis Dr. Yasa Eksioglu OZOK

8.	Engr. Muhammad Hussain (02-281151-001)	EE, BUKC	PhD EE	Dr. Haroon Rasheed	Resources Allocation and Optimization of Multiuser Communication for Next Generation Network	Prof. Ekram Hossain Prof. Nandana Rajatheva Prof. Pascal Lorenz Prof. Fanggang Wang
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**Annex-VI: Appointment of Supervisors & Advisory Committees**

SNo.	Name (Enrollment #)	Program	Dept. / Campus	Supervisor (Co-Supervisor)	Advisory Committee	Remarks
1.	Shahzad Ahmed 01-281162-003	PhD CE	CE, BUIC	Dr. Saleem Aslam	Dr. Saleem Aslam Dr. Shahzad Hassan Dr. Imran Fareed Nizami	Advisory committee updated due to non-availability of members.
2.	Shahid Mahmood 01-284212-002	PhD CS	CS, BUIC	Dr. Moneeb Gohar	Dr. Moneeb Gohar Dr. Moazzam Ali Dr. Faisal Bashir	
3.	Nasir Ali 01-284212-001	PhD CS	CS, BUIC	Dr. Muhammad Najam Ul Islam	Dr. Muhammad Najam Ul Islam Dr. Faisal Bashir Hussain Dr. Ibrahim Tariq Javed	
4.	Nomana Abid 01-283212-001	PhD Mathematics	CS, BUIC	Dr. Jaffer Hasnain	Dr. Jaffer Hasnain Dr. Muhammad Ramzan Dr. Rizwan Ul Haq	
5.	Darakshan Syed 02-284212-001	PhD CS	CS, BUKC	Dr. Ghulam Muhammad (Dr. Kashif Hussain)	Dr. Ghulam Muhammad Dr. Kashif Hussain Dr. Raheel Siddiqi	
6.	Muhammad Shahzad 02-284212-002	PhD CS	CS, BUKC	Dr. Safdar Ali Rizvi	Dr. Syed Safdar Ali Dr. Ghulam Muhammad Dr. Osama Rehman	
7.	Zainab Wahab 01-286172-008	PhD ES	EES, BUIC	Dr. Humera Farah (Dr. Abdul Waheed)	Dr. Humera Farah Dr. Asma Jamil Dr. Javed Nawab	Dr. Javed Nawab added to the advisory committee due to non-availability of previous member Dr. Imran Khalid. Case already approved on file, FRC ratifies the change.
8.	Muhammad Yaseen 01-281201-001	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Muhammad Aamir)	Dr. Asad Waqar Dr. Imtiaz Alam Dr. Imran Fareed Nizami	Advisory committee updated Co-Supervisor updated (Para 15.10)

9.	Syed Umaid Ali 01-281172-006	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Muhammad Aamir)	Dr. Asad Waqar Dr. Imtiaz Alam Dr. Imran Fareed Nizami	Advisory committee updated
10.	Faheem Haroon 01-281172-005	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Muhammad Aamir)	Dr. Asad Waqar Dr. Imtiaz Alam Dr. Imran Fareed Nizami	Advisory committee updated
11.	Madiha Khalid 01-281162-002	PhD EE	EE, BUIC	Dr. Muhammad Najam ul Islam (Dr. Umer Mujahid)	Dr. Najam ul Islam Dr. Saleem Aslam Dr. Imtiaz Alam	Advisory committee updated
12.	Maryam Iqbal Shah Taizi 01-281171-003	PhD EE	EE, BUIC	Dr. Asif Mahmood Mughal (Dr. Junaid Imtiaz)	Dr. Asif Mahmood Mughal Dr. Saleem Aslam Dr. Imran Fareed Nizami	Advisory committee/Co- supervisor updated (Para 15.10)
13.	Nadia Sultan 01-281161-001	PhD EE	EE, BUIC	Dr. Asif Mahmood Mughal (Dr. Najam ul Islam)	Dr. Asif Mahmood Mughal Dr. Najam ul Islam Dr. Imtiaz Alam	Advisory committee updated
14.	Adnan Yaqoob Salik 01-281192-001	PhD EE	EE, BUIC	Dr. Atif Raza Jafri (Dr. Imran Siddiqi)	Dr. Atif Raza Jafri Dr. Imran Fareed Nizami Dr. Najam ul Islam	Advisory committee updated
15.	Kiran Farzana 01-281212-001	PhD EE	EE, BUIC	Dr. Asad Waqar (Dr. Imran Fareed Nizami)	Dr. Asad Waqar Dr. Imran Fareed Nizami Dr. Muhammad Aamir	
16.	Engr. M. Faisal Siddiqui 02-281172-002	PhD EE	EE, BUKC	Dr. Najam M. Amin	Dr. Najam M. Amin Dr. Haroon Rasheed Dr. Anzar Alam	Dr. Anzar Alam replaces Dr. Zhigong Wang in the advisory committee due to retirement of Dr. Wang
17.	Engr. Rana Saeed Ahmed 02-281181-001	PhD EE	EE, BUKC	Dr. Najam M. Amin	Dr. Najam M. Amin Dr. Mohsin Aman Dr. Raja Masood Larik	Dr. Raja Masood Larik replaces Dr. Abdul Attayyab in the advisory committee based on the relevance with the research theme
18.	Muhammad Tauseef 02-281212-001	PhD SE	SE, BUKC	Dr. Sohaib Ahmed (Dr. Amina Jameel)	Dr. Sohaib Ahmed Dr. Zakria Jamali Dr. Najeed Ahmed	

19.	Engr. Fazal Muhammad 02-281191-001	PhD EE	EE, BUKC	Prof. Dr. Haroon Rasheed	Prof. Dr. Haroon Rasheed Dr. Muhammad Raza Dr. Abdul Qadir	Advisory committee was approved in 10 <sup>th</sup> meeting of the FRC, but explicit appointment of supervisor was missing
20.	Engr. M. Waleed Raza 02-281191-002	PhD EE	EE, BUKC	Dr. Muhammad Raza	Dr. Muhammad Raza Prof. Dr. Haroon Rasheed Dr. Mohsin Aman	Advisory committee was approved in 10 <sup>th</sup> meeting of the FRC, but explicit appointment of supervisor was missing
21.	Engr. M. Ovais Akhter 02-281192-001	PhD EE	EE, BUKC	Dr. Najam M. Amin	Dr. Najam M. Amin Dr. Aurangzaib Rashid Masud Dr. Imran Naseem	Advisory committee was approved in 10 <sup>th</sup> meeting of the FRC, but explicit appointment of supervisor was missing

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

SNo.	Name (Enrolment #)	Dept./Campus	Program	Supervisor (Co-Supervisor)	Thesis Title	Recommended Examiners <sup>1</sup>
1	Nadia Sultan 01-281161-001	EE, BUIC	PhD EE	Dr. Asif Mahmood Mughal (Dr. Najam ul Islam)	Optimal Feedback Linearization Control Design for Postural Stability and Biomechanical Sit to Stand Movement	<p>External Examiners:</p> <ol style="list-style-type: none"> <li>1. <b>Dr. Ahsan Ali, UET Taxila</b></li> <li>2. <b>Dr. Mukhtar Ullah, FAST NU</b></li> <li>3. Dr. Ammar Hasan, SEECs NUST</li> <li>4. Dr. Noman Naseer, Air University</li> </ol> <p>Internal Examiners</p> <ol style="list-style-type: none"> <li>1. <b>Dr. Abdul Attayab Khan</b></li> <li>2. Dr. Najam Muhammad Amin</li> <li>3. Dr. Haroon Rashid</li> </ol>
2	Engr. Muhammad Hussain 02-281151-001	EE, BUKC	PhD EE	Dr. Haroon Rasheed	Resources Allocation and Optimization of Multiuser Communication for Next Generation Network	<p>External Examiners:</p> <ol style="list-style-type: none"> <li>1. <b>Dr. Rehan Inam Qureshi, Sir Syed UET.</b></li> <li>2. <b>Dr. Arshad Aziz, PNEC-NUST.</b></li> <li>3. Dr. Arif Iqbal, SUPARCO.</li> <li>4. Dr. Syed Abbas Ali, NED UET.</li> </ol> <p>Internal Examiners</p> <ol style="list-style-type: none"> <li>1. <b>Dr. Osama Rehman</b></li> <li>2. Dr. Saleem Aslam</li> </ol>
3.	Ikram ul Haq (01-281142-002)	SE, BUIC	PhD SE	Dr. Tamim A Khan	Secure Model-based Penetration Framework for Android Native Applications	<p>External Examiners:</p> <ol style="list-style-type: none"> <li>5. <b>Dr. Onaiza Maqbool - QAU</b></li> <li>6. Dr. Basit Shahzad - NUML</li> <li>7. Dr. Usman Qamar - E&amp;ME, NUST</li> <li>8. Dr. Majid Iqbal - COMSATS</li> </ol> <p>Internal Examiners</p> <ol style="list-style-type: none"> <li>1. <b>Dr. Sabina Akhtar</b></li> <li>2. Dr. Muhammad Muzammal</li> </ol>

<sup>1</sup> Subject to clearance of foreign evaluation where applicable, Boldfaced names represent those approved for the ITD by the Pro-Rector (RIC).

**Annex-VIII: Extension in Time Bar of PhD Scholars**

<b>SNo.</b>	<b>Name</b>	<b>Dept.</b>	<b>Program</b>	<b>Supervisor</b>	<b>Decision</b>
1.	Nadia Sultan 01-281161-001	EE, BUIC	PhD (EE)	Dr. Asif Mahmood Mughal (Dr. Najam ul Islam)	One year extension (till Fall 2022) granted by the FRC
2.	Hajra Masood 02-284151-002	CS, BUKC	PhD (CS)	Dr. Humera Farooq	One year extension recommended by the FRC for approval from the competent authority
3.	Engr. Muhammad Hussain 02-281151-001	EE, BUKC	PhD (EE)	Dr. Haroon Rasheed	One year extension recommended by the FRC for approval from the competent authority
4.	Zulfiqar Ali 01-281151-001	SE, BUIC	PhD (SE)	Dr. Kashif Naseer	One year extension recommended by the FRC for approval from the competent authority
5.	Shaista Mahmud 02-283161-003	EES, BUKC	PhD (Geophysics)	Dr. Salma Hamza	One year extension (till Fall 2022) granted by the FRC
6.	Muhammad Irfan 02-283161-004	EES, BUKC	PhD (Geophysics)	Dr. Salma Hamza	One year extension (till Fall 2022) granted by the FRC

**Annex-IX: Ratification of External Examiner for MS Thesis Defense**

Sr.	Name (Enrolment #)	Thesis Title	Dept.	Program	Supervisor (Co-Supervisor)	Previous Examiner	New Examiner
1	Rafi Ullah Khan 01-242182-008 (Case: BUIC/CE/2021/094)	Fake News Detection Using Deep Learning	CE, BUIC	MS (CE)	Dr. Shehzad Khalid	Dr. Farhan Riaz (External)	Dr. Usman Akram (External)
2.	Syed Ali Imran 02-248182-006 (Case:BUKC/CS/2021/002)	Mathematical model for estimation of ground level particulate matter concentration in Karachi	CS, BUKC	MS (Mathematics)	Dr. Asif Mansoor	Dr. Yousuf Tufail (External)	Dr. Murtaza Hussain (External)
3.	Ahamad Yousha 01-244191-003 (Case:BUIC/EE/2021/193)	Speed Control of a Permanent magnet synchronous motor using a robust Nonlinear controller	EE, BUIC	MS (EE)	Engr. Nadia Imran  (Engr. Maryam Iqbal)	Dr. Asim Ali Shah	Dr. Asad Waqar



**Annex-X: Appointment of Examiners for PhD Comprehensive Exams**

Sr.	Name (Enrolment #)	Dept., Campus	Program	Supervisor (Co-Supervisor)	Research Theme	Course	Examiner
1	Nazia Shahmir 01-283202-001	CS, BUIC	Phd (Mathematics)	Dr. Muhammad Ramzan	Heat and mass transfer analysis of nanofluid flows with Entropy generation optimization	Heat and Mass Transfer	Dr. Jafar Hasnain
						Advanced Mathematical Physics	Dr. Rizwan Ul Haq
						Perturbation Methods	Dr. Jafar Hasnain
						Modelling and Simulation of Dynamical Systems	Dr. Muhammad Ramzan
2	Ali Raza 01-283202-002	CS, BUIC	Phd (Mathematics)	Dr. Rizwan Ul Haq	CFD approach of the cavity via FEM	Heat and Mass Transfer	Dr. Jafar Hasnain
						Advanced Mathematical Physics	Dr. Rizwan Ul Haq
						Perturbation Methods	Dr. Jafar Hasnain
						Modelling and Simulation of Dynamical Systems	Dr. Muhammad Ramzan