**DEPARTMENT OF MECHANICAL ENGINEERING**

**UNIVERSITY OF ENGINEERING AND TECHNOLOGY** **TAXILA**

**Minutes of Meeting of Board of Post-Graduate Studies, held on 02.08.2018 at 10:00am in the Conference Room, MED**

Following were present:

* 1. Prof. Dr. Riffat Asim Pasha (In Chair)
  2. Prof. Dr. M. Shahid Khalil
  3. Prof. Dr. M. Zubair Khan
  4. Dr. Azhar Munir
  5. Dr. Muhammad Ali Nasir

Meeting started with the name of Allah Al-mighty.

**Item No. 1 Post-graduate research seminar (Final Progress Report)**

Following students presented their progress report of M.Sc. Research.

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Hashim Aurangzeb Haque (16-MS-FT-AMD-02)** |
| **Supervisor** | Prof. Dr. Riffat Asim Pasha |
| **Thesis Title** | Design and analysis of air preheater using CFD and its effects on thermal efficiency of industrial boiler |
| **Panel for External Viva** | 1. Dr. Hassan Junaid, Deputy GM, PMO Taxila 2. Prof. Dr. Rafi Javed Qureshi, Swedish College, Wah Cantt. 3. Dr. Atta-ur-Rehman, Asst Prof. HITEC Univ. Taxila. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Basit Yaqoob (16-MS-FT-AMD-04)** |
| **Supervisor** | Prof. Dr. Riffat Asim Pasha |
| **Thesis Title** | Development and Analysis of Hybrid Aluminum Matrix Based Surface Composites using Technique of Friction Stir Processing. |
| **Panel for External Viva** | 1. Dr. Athar Masood, Associate Prof. IIU Islamabad. 2. Prof. Dr. M. Zubair Khan, IST Islamabad. 3. Dr. Azhar Munir, Director AWC Hassanabdal. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Hashir (16-MS-FT-AMD-05)** |
| **Supervisor** | Prof. Dr. Riffat Asim Pasha |
| **Thesis Title** | Fatigue Life Assessment of Dissimilar Metals Welds under Four Point Rotating Bending Condition |
| **Panel for External Viva** | 1. Brig. Dr. Badar Rashid, Director Research POF Wah Cantt. 2. Prof. Dr. Kamran Afaq, HoD Mechanical, HITEC Taxila. 3. Dr. Athar Masood, Associate Prof. IIU Islamabad. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Aizaz Kashif (16-MS-FT-TSE-08)** |
| **Supervisor** | Dr. Muzaffar Ali |
| **Thesis Title** | Performance Analysis of a Solar Assisted Dessiccant Cooling System Integrated with Maisotsenko Cycle. |
| **Panel for External Viva** | 1. Dr. Khurram Pervez Amber, HoD Mech, MUST Mirpur (AJK)  2. Dr. Saeed Badshah, HoD Mech, IIU Islamabad.  3. Dr. Ajaz Bashir Janjua, Deputy GM, HMC Taxila |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Fouzia Begum (14-MS-PT-TF-05)** |
| **Supervisor** | Dr. Muzaffar Ali |
| **Thesis Title** | Transient Simulation of an Integrated Solar Assisted Desiccant System with Maisotsenko Cycle in Different Climate Zones of Pakistan |
| **Panel for External Viva** | 1. Dr. Yamin Younas, Asst. Prof. MUST Mirpur(AJK).  2. Prof. Dr. Nadeem Ahmed Sheikh, IIU Islamabad  3. Dr. Waheed Badar, AP HITECH University Taxila |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Abdul Rehman (16-MS-PT-AMD-02)** |
| **Supervisor** | Dr. Nazeer Ahmed Anjum |
| **Thesis Title** | Effect of Nano Fluid Lubricant on Surface Characterization of Aluminum Alloy |
| **Panel for External Viva** | 1. Prof. Dr. M. Zubair Khan, IST Islamabad. 2. Dr. Rizwan Zafar, GM NESCOM Taxila. 3. Dr. Saeed Badshah, HoD Mechanical, IIU Islamabad. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Shahid Bashir (16-MS-FT-TSE-10)** |
| **Supervisor** | Prof. Dr. Shahab Khushnood |
| **Thesis Title** | Experimental Wear Analysis of Flexible Tube with Varying Support Plate Geometry. |
| **Panel for External Viva** | 1. Dr. Zaheer ul Hassan, MD, POF Wah Cantt. 2. Dr. Azhar Munir, Director AWC Hassanabdal. 3. Dr. Ajaz Bashir Janjua, HMC Taxila. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Asim Azeem (16-MS-FT-AMD-09)** |
| **Supervisor** | Dr. Sayyid Masoodur Rehman Shah |
| **Thesis Title** | Design and Development of DC-LSND Welding Rig for Cylindrical Pipes |
| **Panel for External Viva** | 1. Dr. Amir Shahdeen, GM MTC, Islamabad. 2. Dr. Adil Shahzad, Deputy Director, HIT Taxila. 3. Prof. Dr. M. Zubair Khan, IIU Islamabad. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Rehan Saghir (16-MS-PT-AMD-08)** |
| **Supervisor** | Dr. Nazeer Ahmed Anjum |
| **Thesis Title** | Investigation of cutting parameters using MQL optimum technique in turning process |
| **Panel for External Viva** | 1. Prof. Dr. Kamran Afaq, HoD, HITEC Univ. Taxila. 2. Prof. Dr. Ghulam Yasin Chohan, Principal, UoS, Sargodha. 3. Dr. Amir Sultan, Associate Prof. Sub. Campus Chakwal UET Taxila. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Tauseef ur Rehman (16-MS-FT-TSE-05)** |
| **Supervisor** | Dr. Hafiz Muhammad Ali |
| **Thesis Title** | Heat Transfer Enhancement of Phase Change Materials using Porous Metals |
| **Panel for External Viva** | 1. Dr. Ajaz Bashir Janjua, Deputy GM, HMC Taxila.  2. Dr. Masoodur Rehman Shah, GM Innovia Tech Ind. Islamabad.  3. Dr. Asif Hussain Malik, PE, KRL Kahutta |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Sajawal (15-MS-PT-TSE-12)** |
| **Supervisor** | Dr. Hafiz Muhammad Ali |
| **Thesis Title** | An Experimental Investigation of Performance of a Double Pass Solar Air Heater using PCMs of Different Melting Points. |
| **Panel for External Viva** | 1. Dr. Azhar Munir, Director, AWC Hassanabdal.  2. Dr. Najam us Saqib, NESCOM Islamabad.  3. Dr. Masoodur Rehman Shah, GM Innovia Tech Ind. Isl. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Usman Sajid (16-MS-FT-TSE-03)** |
| **Supervisor** | Dr. Hafiz Muhammad Ali |
| **Thesis Title** | Performance improvement of Heat Sinks with enhanced Geometries using nano-fluids |
| **Panel for External Viva** | 1. Prof. Dr. M. Zubair Khan, IST Islamabad. 2. Dr. Khurram Perzaiz, Asst. Prof. MUST, Mirpur. 3. Prof. Dr. Kamran Afaq, HoD, HITEC Univ. Taxila. |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Arslan Qasim (16-MS-FT-TSE-04)** |
| **Supervisor** | Dr. Hafiz Muhammad Ali |
| **Thesis Title** | Efficiency Improvement of PV Panel through PCM Based System, Finns and Their Comparison. |
| **Panel for External Viva** | 1. Prof. Dr. M. Zubair Khan, IST Islamabad. 2. Dr. Ajaz Bashir Janjua, Deputy GM, HMC Taxila. 3. Prof. Dr. Kamran Afaq, HoD, HITEC Univ. Taxila |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Nouman Riaz (14-MS-EnE-PT-09)** |
| **Supervisor** | Dr. Tanzeel ur Rashid |
| **Thesis Title** | Assessment of Improved Energy Efficient Techniques in Pakistan’s Housing Sector |
| **Panel for External Viva** | 1. Dr. Noor, Atomic Energy Commission Pakistan. 2. Dr. Ajaz Bashir Janjua, Deputy GM, HMC Taxila. 3. Prof. Dr. Kamran Afaq, HoD, HITEC Univ. Taxila |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Nabeel (14-MS-FT-AMD-08)** |
| **Supervisor** | Dr. Muhammad Ali Nasir |
| **Thesis Title** | Mechanical Characterization of Hybrid Kevlar Fabric Reinforced Epoxy/Thermoplastic Polyurethane Composites Enhanced with Nanoparticles. |
| **Panel for External Viva** | Brig. Dr Badar Rashid, Director Research POF Wah Cantt  Dr. Saad Noman, Assistant Prof. Material Dept. IST, Islamabad  Dr. Sohail Malik, Assistant Prof. MED, GIKI, Topi Sawabi |

1. Board recommended the final progress report of below mentioned scholar and allowed him to appear for his final viva. Panel of external examiners is also recommended.

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| **Name of Scholar & Reg.** | **Muhammad Noman Ali (16-MS-FT-TSE-07)** |
| **Supervisor** | Prof. Dr. Shahab Khushnood |
| **Thesis Title** | Experimental Investigation of the Internal Tube Flow Effect on the Vibration Response of the Tubes in Shell and Heat Exchanger. |
| **Panel for External Viva** | 1. Dr. Zaheer ul Hassan, MD, POF Wah Cantt. 2. Dr. Azhar Munir, Director AWC Hassanabdal. 3. Dr.Qamar Irfan, HMC-3. |

**Item No. 2 MSc Research Topic Approval/Synopsis**

Board recommended the following Research Topics against MSc Scholars mentioned below.

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| **Sr. No.** | **Student Name** | **Supervisor** | **Research Topics** |
| 1 | Arslan Yawar  17MS-FT-TSE-01 | Dr. Muhammad Shehryar | Transient flow and heat transfer response of a rotationally oscillating cylinder subjected to a gust impulse. |
| 2 | Awais Awan  17-MS-FT-AMD-03 | Prof. Dr. Riffat Asim Pasha | Effect of Titanium Interlayers on Mechanical Properties and Microstructure of TiN PVD Coated Stainless Steel. |
| 3 | Afzaal Ahmed Khan  17-MS-FT-AMD-11 | Dr. Nazeer Ahmed Anjum | Experimental and Numerical Determination of welding Residual Stresses and Deformation in a steel plate having two parallel welds |
| 4 | Muhammad Ammar Akram  17-MS-FT-TSE-06 | Prof. Dr. Shahab Khushnood | Modeling of Flow Induced Vibration of Tube in a Tube Bundle with Unsteady Flows. |
| 5 | Adeeba Batool  17-MS-FT-AMD-12 | Dr. Nazeer Ahmed Anjum | Effect of Tool Design on the Strength and Hardness of Dissimilar Alloys Welds. |
| 6 | Muhammad Saleem  17-MS-FT-AMD-15 | Dr. Nazeer Ahmed Anjum | Fatigue Characterization of Dissimilar Aluminum Welded Joints both numerically and experimentally using Four Point Rotating Bending Machine |
| 7. | Zubair Ahmad Qureshi  17-MS-FT-TSE-02 | Prof. Dr. Shahab Khushnood | Experimental Study on Phase Change Material Assisted Heat Pipe Cooling System. |
| 8. | Tayyab Raza Shah  17-MS-FT-TSE-04 | Dr. Hafiz Muhammad Ali | Performance Analysis of Automotive Cooling System using Advanced Nanofluids. |
| 9. | Hamza Babar  17-MS-FT-TSE-08 | Dr. Hafiz Muhammad Ali | Experimental investigation on the performance of mini-channel heat sinks by employing advanced nanofluids. |
| 10. | Tufail Rehman Jadoon  16-MS-PT-TSE-14 | Dr. Hafiz Muhammad Ali | Performance analysis of fins and nanofluids on Phase Change Material Based Photovoltaic Panels. |
| 11. | Faria Akhter  17-MS-FT-EnE-05 | Dr. Muzaffar Ali | Experimental and model based Investigation of solar Compound parabolic collector (CPC) using Nanofluids |
| 12. | Waqas Ahmad  17-MS-FT-EnE-02 | Dr. Muzaffar Ali | Performance enhancement of indirect evaporative cooler through efficient channel design |
| 13. | Muhammad Farhan Habib  17-MS-FT-EnE-06 | Dr. Muzaffar Ali | Integration of solar assisted Desiccant system with absorption system for efficient thermal load management |
| 14. | Syeda Laraib Tariq  17-MS-FT-EnE-04 | Dr. Hafiz Muhammad Ali | Heat Sinks with Nano-Phase Change Material (PMC) for Passive Cooling |
| 15. | Ubaid Ur Rehman  17-MS-FT-EnE-01 | Dr. Tanzeel ur Rashid | Technological Assessment based on lovelized cost of energy (LCOE) for Biomass resources of Pakistan |
| 16. | Kaleem Akhtar  17-MS-FT-AMD-07 | Dr. Waqar Ahmad Qureshi | Stress Analysis of Composite Pressure Vessel Based on Winding Kinematics |
| 17. | Noman Bin Zakir  15-MS-PT-AMD-06 | Prof. Dr. Riffat Asim Pasha | The Effect of Notch Parameters and Loadings on a Fatigue Life of Carbon steel Using Finite Element Technique |
| 18. | Muhammad Soban Arshad  15-MS-PT-AMD-01 | Dr. Muhammad Ali Nasir | Effect of Tungsten Grain Size on The Microstructure and Mechanical Properties of Tungsten Heavy Alloy 93W 4.2Ni 2.5Fe0.3Co. |

**Item No. 3** **Courses and Course Teacher Allocation for Semester Autumn 2018**.

Board recommended the allocation of courses to be taught in semester Autumn 2018 along with their respective course teachers. (Attached as Annexure 1).

**Item No. 4.** **Constitution of PhD Research Monitoring Committee**

Board recommended the constitution of Research Monitoring Committee for following PhD Scholar.

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| **Scholar Name and Regd.** | **Supervisor** | **RMC Committee** |
| Ijaz Hussain Malik  14-UET/PhD-ME-84 | Prof. Dr. Shahab Khushnood | 1. Dr. Naeem Ullah Dar 2. Dr. Muhammad Ejaz Qureshi. 3. Dr. Muhammad Masuod Akhtar 4. Dr. Muhammad Ali Nasir |

The meeting ended with the vote of thanks to the chair.

***DIRECTOR, PGS***

***CHAIRMAN***