Engr. Dr. Muhammad Umer Sohail (*PhD Aerospace Engineering*)

Assistant Professor (HEC Approved Supervisor)

https://orcid.org/0000-0003-0429-49X

Cell # +92-344-5266876

Email: umer.sohail@ist.edu.pk | engr.mu.sohail@gmail.com



RESEARCH DIRECTIONS:

Turbomachines	Aerodynamics	Machine Learning
Artificial Neural Network	Computational Fluid Dynamics	Aero Propulsion

WORK EXPERIENCE:

Assistant Professor (TTS)	Oct 2021 – Continue	Institute of Space Technology
Assistant Professor	Sep 2020 – Oct 2021	(NUSET) NUTECH, ISB.
Lecturer	Jan 2016-Sep 2020	Uni. of Wah, Wah Engg. College
Lecturer	Nov 2010-Jan 2016	Roots College ISB.
Project Manager	Jan 2011-Sep 2012	Friends Veneer, ISB.
Project Manager	Nov 2009-Nov 2010	Medical Devices, Skt.

ACADEMICS:

PhD. Aerospace Engineering	2014-2020	***Institute of Space Technology***, ISB.
MS Power Mechanical	2010-2013	***MUST***, Mirpur AJK
(COL) MBA Executive	2012-2015	Commonwealth of Learning, ***AIOU***
BSc Mechanical Engineering	2005-2009	***MUST***, Mirpur AJK

Professional Membership and Reviewer

- **Member – Aerospace Engineering Test Item Design and Development Committee**
  Experts Identification and Selection Committee (ETC) (2026-2029)
  - anted to contribute to the design and development of test items in the discipline of Aerospace Engineering.
  - Responsible for contributing subject-matter expertise to the development of assessment items in Aerospace Engineering.
- Member Asian Council of Science Editor-2025
- Member BOS, Mirpur University of Technology (MUST)
- Reviewer MDPI Journals
- Reviewer Journal of Applied Fluid Mechanics (JAFM), Brazilian Society of Mechanical Engineering
- Reviewer IBCAST and Nature Scientific Reports

SCI INDEXED JOURNAL ARTICLES:

1. Ikrama Tariq, Muhammad Wasim*, Muhammad Umer Sohail*(2026) "***Design of a Gain-Scheduled LQR Controller for Landing of a Reusable Launch Vehicle" Process*** **https://doi.org/10.3390/pr14152458**
2. Danish Hameed , Kaleem Anwar, Tanzeel-ur-Rashid, Sibghat Ullah, Muhammad Umer Sohail*, Muhammad Waheed Azam (2026) ***"Power Sector Transformation: Nationally Determined Contributions Aligned Policy Analysis Using TIMES / MarkAL Model" World*** **https://doi.org/10.3390/world7070115 (I.F ~ 2.8)**

3. Muhammad Umer Sohail*, Anees Waqar, Hammad Ajmal (2026) "***Energy-Tuned Airfoil Control via Twain Co-Flow Jet System"*** ***Applied Mechanics*** **https://doi.org/10.3390/applmech7020039 (I.F ~ 1.5)**
4. Sadia Sadiq, Muhammad Umer Sohail *, Muhammad Wasim, Farooq Kifayat Ullah, and Zeashan Khan (2026) ***"Design and verification of 6 DOF robotic arm for Captive Trajectory System applications in wind tunnel"*** ***Automation*** **https://doi.org/10.3390/automation7020058 (I.F ~ 2.5)**
5. Anees Waqar, Hammad Ajmal, Muhammad Umer Sohail (2026) "***Experimental Insights and Machine Learning-Based Predictions of Momentum-Controlled Dual Co-Flow Jet Airfoil"*** ***Flow, Turbulence and Combustion*** **https://doi.org/10.1007/s10494-026-00742-2 (I.F ~ 2.4)**
6. Muhammad Wasim, Ahsan Ali, Muhammad Umer Sohail* (2025) "***Development of Nonlinear Six-Degree-of-Freedom Dynamic Modeling and High-Fidelity Flight Simulation of an Autonomous Airship"*** ***Process*** **https://doi.org/10.3390/pr13092688 (I.F ~ 2.8)**
7. Syed Hossein Raza Hamdani, Fatima Tuz Zehra, Muhammad Umer Sohail, Hassan Elahi, Muhammad Rizwan *Mughal*, (2025) ***"Design of Corrugated Airfoil for a Flapping Wing Micro Air Vehicle"*** ***International Journal of Aerospace Engineering*** **https://doi.org/10.1155/ijae/8837246 (I.F ~ 2.0)**
8. Adil Khan, Muhammad Umer Sohail*, **(2025)** *"Evaluating the Structural Integrity of Deep Sea Vehicle: Design and Analysis of OceanGate's Titan Implosion"* ***International Journal of Energy and Water Resources*****, https://doi.org/10.1007/s42108-024-00335-7 (I.F ~ 1.0)**
9. Syed Hossein Raza Hamdani, Maha Batool, Muhammad Umer Sohail*, **(2025)** *"Effect of Corrugations on an Airfoil Performing Plunging at Low Reynolds Number"* ***Iranian Journal of Science and Technology, Transactions of Mechanical Engineering,*** **(I.F ~ 1.5) https://doi.org/10.1007/s40997-024-00833-3**
10. Mamoon Aamir, Sultan Alshehery, Aqsa Zafar Abbasi, Muhammad Umer Sohail, Naveed Khan, Abdelhakim Mesloub, Mariyam Sattar, and Lioua Kols, **(2025)** ***"Analysis for 3D Thermal Conducting Micropolar Nanofluid via Artificial Neural Network"*** ***European Physical Journal Plus,*** **(I.F ~ 1.5) https://doi.org/10.1140/epjp/s13360-025-06022-8**
11. Kottakkaran Sooppy, Mamoon Aamir, Aqsa Zafar, Asif Zahoor, Muhammad Umer Sohail, **(2024)** ***"Comparative Analysis of Compressible Inviscid Flow Over Symmetric & Supercritical Airfoil"*** ***Results in Physics,*** **Volume 62, https://doi.org/10.1016/j.rinp.2024.107830 (I.F ~ 5.3)**
12. Asif Durez, Muhammad Umer Sohail*, Muzaffar Ali, Umer Azeem, **(2024)** ***"Thermal Analysis and Efficiency Enhancement of Solar Modified PV Panels through Organic PCM under Climate Conditions of Pakistan", Mehran University Research Journal of Engineering and Technology*** **https://doi.org/10.22581/muet1982.2401.2679**
13. Zara Ahmed, Muhammad Umer Sohail*, Asma Javed, and Raees Fida Swati (**2023**) ***"Development of a Predictive Tool for the Parametric Analysis of a Turbofan Engine"*** ***Applied Sciences, Volume 13(19),*** **https://doi.org/10.3390/app131910761 (I.F ~ 2.84)**
14. Nidhish Kumar Mishra, Adnan, Muhammed Umer Sohail, Mutasem Z. Bani-Fwaz, Ahmed M. Hassan, (**2023**) ***"Thermal analysis of radiated (aluminum oxide)/water through a magnet based geometry subject to Cattaneo-Christov and Corcione's Models"- Case Studies in Thermal Engineering, Volume 49.*** **https://doi.org/10.1016/j.csite.2023.103390 (I.F ~ 10)**
15. Kamel Smida, Adnan, Muhammad Umer Sohail, Iskander Tlili, Asma Javed (**2023**) ***"Numerical thermal study of Ternary Nanofluid influenced by thermal radiation towards convectively heated***

sinusoidal cylinder *Heliyon* 9 (2023) 7 https://doi.org/10.1016/j.heliyon.2023.e20057 (I.F ~ 4.0)

16. Usman Allauddin, Muhammad Umer Sohail, Muhammad Sohaib, Muhammad A.Siddiqui, Muhammad H.U.Khan, Kashif khan, Patrick G. Verdin, (2023) ***"Heat Transfer and Fluid Flow Investigations in Jet Impingement System of a Single and Array of Square Jets Formed Under Fixed Mass Flow Rate"*** *Computational Thermal Sciences,* https://doi.org/10.1615/ComputThermalScien.2023046632

17. Sohaib Khan, Muhammad Umer Sohail*, Ihtezaz Qamar, and Raees Fida Swati (2022) ***"Effect of Secondary Combustion on Thrust Regulation of Gas Generator Cycle Rocket Engine"*** *Applied Science*, *12*(20), 10563; https://doi.org/10.3390/app122010563 (I.F ~ 2.84)

18. Suniya S. Khan, Ihtezaz Qamar, Muhammad Umer Sohail, Raees Fida Swati (2022) ***"Comparison of Optimization Techniques and Objective Functions Using Gas Generator and Staged Combustion LPRE cycles"*** *Applied Science* (Special Issue Applications of Machine Learning and Optimal Control to Aerospace Systems), 12, 10462. https://doi.org/10.3390/app122010462 (I.F ~ 2.84)

19. Shahid Aziz, Abdullah Khan, Imran Shah, Tariq Amin Khan, Yasir Ali, Muhammad Umer Sohail, Badar Rashid, Dong Wong Jung (2022) ***"Computational Fluid Dynamics Analysis of a Wind Turbine Blade's Frontal Section with and without Arrays of Dimpled Structures"*** *Energies"* 15, 7108, https://doi.org/10.3390/en15197108 (I.F ~ 3.252)

20. Raees Fida Swati, Saad Riffat Qureshi, Muhammad Umer Sohail, Adnan Munir, Omer.Masood Qureshi, Abid Ali Khan, (2022) ***"Micro-mechanical investigation of Interfacial Debonding in Carbon Fiber Reinforced Composites using Extended Finite Element Method (XFEM) Approach"*** *Micromachines* 13, 1226; (I.F ~ 2.942) https://doi.org/10.3390/mi13081226

21. Muhammad Umer Sohail*, Hossein Raza Hamdani, Asad Islam Khalid Parvez, Abdul Munem Khan, Usman Allauddin, Hassan Elahi, (2021) ***"A performance prediction detection at Transonic compressor in a Non-uniform and distorted flow by using Artificial Neural Network and Regression Learner"*** *Applied Science*, 11(8), 3706; (I.F ~ 2.84), https://doi.org/10.3390/app11083706

22. Muhammad Umer Sohail*, Hassan Elahi, Asad Islam, Hossein Raza Hamdani, Khalid Parvez, Raees Fida Swati, (2021) ***"CFD Analysis on the Effects of Distorted Inlet Flows with Variable RPM on The Stability of the Transonic Micro-Compressor"*** *Microsystem Technologies*, (I.F ~ 1.737) doi.org/10.1007/s00542-020-05177-x

23. Muhammad Umer Sohail*, Hossein Raza Hamdani, Khalid Parvez (2021) "***Flow Angularity & Swirl Flow Analysis on Transonic Compressor Rotor by 1-D DYNTECC and CFD Analysis"*** *Fluid Dynamics,* 56(2), 278-290 (I.F ~ 0.75) https://doi.org/10.1134/S0015462821010134

24. Sidra Habib, Asad Islam, Amreen Batool, Muhammad Umer Sohail and Muhammad Nadeem, **12,7 2021** "***Numerical Solutions of the Fractal Foam Drainage Equation***", *International Journal on Geomathematics*, https://doi.org/10.1007/s13137-021-00174-2

25. Muhammad Umer Sohail*, Hossein Raza Hamdani, Khalid Parvez (2020) "***CFD Analysis of Effect of Tip Clearance on Transonic Axial Flow compressor"*** *Fluid Dynamics,* 55(1), 133-144 (I.F ~ 0.75) https://doi.org/10.1134/S0015462820010127

26. Muhammad Umer Sohail*, Muhammad Hassan, Hossein Raza Hamdani, Khalid Parvez (2019) ***"Effect of Ambient Temperature on the Performance of Transonic compressor by Deep Machine Learning and CFD Analysis"*** *Engineering Technology & Applied Science Research,* 9(5), 4640-4648 https://doi.org/10.48084/etasr.2998

CONFERENCE PAPERS & INTERNATIONAL JOURNAL ARTICLES:

1. **Muhammad Umer Sohail,** Saadullah Babar (2025) "***Quasi-Dynamic Modeling of a Generic Turbojet Engine Using System Identification Techniques"*** Emerging Scientist, Faisalabad
2. Sarah Saleem, Ghazanfar Hussain, Muhammad Umer Sohail (2024) ***"Analyzing Icing Phenomenon on the ONERA M6 Wing using Computational Fluid Dynamics***" Wrights: Journal of Aviation Management, Vol.1, No. 1, University of Sialkot, Pakistan
3. Shaazil Atique, Muhammad Umer Sohail (2024) ***"Design, Analysis and Fabrication of Pelton Wheel Turbine with Reengineered Blades and Auxiliary Attachments"*** Emerging Scientist, Faisalabad
4. Anees Waqar, Hammad Ajmal, Muhammad Umer Sohail (2024) ***"Design, and Fabrication of Co-Flow Jet to Control Boundary Layer Separation",*** Emerging Scientist, Season III, Faisalabad
5. Hammad Ajmal, Anees Waqar, Sohail Babar Cheema, Muhammad Umer Sohail (2024) ***"Role of Bias Correction in Pakistan's Hydrological Impact Study",*** Emerging Scientist, Season III, Faisalabad
6. Amna Khan, Daniyal Shahid, Muhammad Umer Sohail, Hossein Raza Hamdani (2023) "***Spike Based Aerodynamic Shape Optimization Analysis of ICBM using Machine Learning and CFD Techniques" (2023) IEEE Xplore, 20th International Bhurban Conference on Applied Sciences and Technology (IBCAST), pp. 651-660, doi: 10.1109/IBCAST59916.2023.10713012***
7. Muhammad UmerSohail**,** Asad Islam (**2017**) *"**Verification &Validation of Flow over a 3D ONERA Wing using CFD Approach**", **Journal of Space Technology***, 7(1), 39-43
8. Muhammad UmerSohail**,** A.R.Kashif (**2016**) "***Effect of Ergonomical Factors on Employees***" ***IJAEMS***, 2(6),792-796
9. Asad Islam Muhammad UmerSohail, S.M.Ali, (**2016**) *"**Simulation of four Stroke I.C. Engine***" ***IJSR,*** 7(2), 1212-1219

KEY NOTE SPEAKERS AT NATIONAL AND INTERNATIONAL CONFERENCE

1. **2026** **Keynote Speaker at** International Conference on the Cooperation and Integration of Industry-Education-Research-Application (Beijing)
2. **2026** **Keynote Speaker at** International Conference on Green Aviation (ICGA2026)Xi'an, China
3. **2026** **Keynote Speaker at** United Nations/Pakistan International Conference on Leverage Space Technology for EW4All, (SUPARCO)
4. **2025** **Invited Speaker** at Emerging Scientist | A Project of the ACSE, Faisalabad
5. **2024** **Invited Speaker** at Emerging Scientist | A Project of the ACSE, Faisalabad
6. **2023** 5th International BRAIA Space Exploration Summer Camp at ***National Polytechnic University, Taicang, China (9th July-21st July, 2023)***
7. **2023** **Invited Speaker** at International Conference on Catalysis and Chemical Engineering, Belstay Roma Aurelia**, Rome, Italy**, March 20-21,2023
8. **2022** **47th International Nathiagali Summer College on Physics and Contemporary Needs Workshop on "Machine Learning & Artificial Intelligence"**

Completed Industrial Based Projects as Principal Investigator

1. **NESCOM (DESTO):** Design of Control Algorithm for Captive Trajectory system **(Rs.0.2Mn)**
2. **AsRa Tech (NASTP):** Design and fabrication of High-Altitude Long-Endurance (HALE) UAVs
3. **AsRa Tech (NASTP):** Machine Learning Driven Optimization of UAV Aerodynamics using CFD for Enhanced Performance
4. **Indus Aero Electronics (NASTP):** Design and Fabrication of Miniature Heli Drone
5. **BoRM (IST):** Design and Fabrication of MALE UAV **(Rs. 0.55M)**
6. **NESCOM (AWC):** Development of multidisciplinary design optimization framework to Improve Aircraft Conceptual Design Process **(Rs.0.1M)**
7. **Indus Aero Electronics (NASTP):** Design and Analysis of a UAV (Miniature Heli Drone)
8. **Allied Technologies Logistics & Support Pvt. Ltd. (ATLS):** Design and CFD Analysis of the 4-Seat Varient of the SAAB MFI-17 Aircraft
9. **NESCOM:** A multi-disciplinary design optimization of an aircraft propeller for UAV application
10. **POF:** Enhanced Penetration of 125mm APFSDS
11. **POF:** CFD Analysis of 81mm Mortar

AWARDS/ HONORS

- **2025** Skilled Performer Awarded on Generative AI Application Developer by PEC
- **2024** Winners of National Final Year Design Project & sponsored by PEC-HEC
- **2023** Best International Group Award at 5th International BRAIA Space Exploration Summer Camp at *National Polytechnic University,* ***Taicang, China***
- **2023** Project "Design & Development of Autonomous Caged Quadcopter" Qualified for *World Startup Championship, (ACE-Aeronautics) NICAT-Pakistan*
- **2020** Co-Chair 7th International Conference on Aerospace Science & Engineering, IST
- **2019** Certificate of Appreciation in recognition of Best under-graduate Supervisor (WEC)
- **2018** 1st Runners-up Team-DICE Water & Energy, NED UET, Karachi
- **2014** Certificate of Appreciation in recognition FLL Regional Robotics Champion
- **2014** Certificate of Appreciation in recognition of Intel Science competition, Provincial Level
- **2013** Certificate of recognition "Environment online Pakistan" UNESCO
- **2012** Outstanding Teacher Award, Roots College International

GRADUATE SUPERVISED THESIS

1. ***2026*** Haider Ali (***MS Aero, IST)***
   Active Flow Control With Tip Injectors For Transonic Compressor Interface Design Through Machine Learning Augmented CFD Approach To Stability Enhancement
2. ***2026*** Tayyab Shakeel (***MS Aero, IST)***
   Design and Analysis of a Biomimetic Passive Cooling System for Lightweight Aircraft Brake Disc Using CFD and FEA
3. **2025** Sadia (***MS Aero, IST)***
   Design of Control Algorithm for Captive Trajectory System (CTS)
4. **2024** Ali Zunair, ***(MS Aero, IST)***
   Design and Development of Machine Learning based Algorithm for prediction of Attitude Hold Autopilot
5. **2024** Adil Khan ***(MS Aero, IST)***
   Mathematical Modeling and Analysis and Implosion of Underwater Vehicle
6. **2024** Saad Ullah Babar ***(MS Aero, IST)***
   Systems Identification & AI Model Development for Analysis of SR-30 Gas Engine
7. **2023** Zara Ahmed ***(MS Aero, IST)***
   Development of Predictive Tool for Turbofan Engine under different conditions
8. **2023** Muzaffar Ahmed ***(MS Aero, IST)***
   Design and CFD Analysis of 4-Seat Variant of SAAB MFI-17 Aircraft
9. **2023** Khawar Khan ***(MS Aero, IST)***
   Development of a propeller design tool by using optimization techniques on BEM theory
10. **2023** Fatima Hira ***(MS Aero, IST)***
    Performance of Reinforcement Learning Algorithms for Control of Inverted Pendulum on a Cart

GRADUATE Students External Evaluator

1. **2026** Mishma Akhtar , (***PhD Computer Science & Engineering, SINES, NUST)***
   Deep Reinforcement Learning based Versatile Maneuvers in UAVs: Transitions between Hover and Cruise and Dynamic Soaring
2. **2026** Mishma Akhtar , (***PhD Computer Science & Engineering, SINES, NUST)***
   Deep Reinforcement Learning based Versatile Maneuvers in UAVs: Transitions between Hover and Cruise and Dynamic Soaring
   Horizontal Flow Passage
3. **2025** Kashif Mushataq ***(MS Mechanical Engineering, Air University, Islamabad)***
   Impact of Axial Splittered Probe on Transonic Compressor Measurements
4. **2025** Umer Munir ***MS Mechanical Engineering, Air University, Islamabad)***
   Impact of Grooved Probes on Transonic Axial Compressor Performance
5. **2025** Faisal Maqbool, ***(PhD Mechanical Engineering, MUST)***
   Synthesis of Carbon And Metal Base Aquous Nanofluid Towards Improving Heat Transfer In Closed
6. **2024** Muhammad Shoaib Idrees, ***(MS Mechanical Engineering, Air University, Islamabad)***
   Effects of Airfoil Probe Head on Transonic Compressor Cascade Flow Fields
7. **2024** Muhammad Salman Zafar, ***(MS Mechanical Engineering, University of Sargodha)***
   Optimization of the Operations of Natural Gas Transmission Pipeline Networks of Pakistan in Transient State

ACADEMIC APPOINTMENTS

- **2024** Member NTC, Mirpur University of Science & Technology ***(MUST)***
- **2023-2027** Focal Person for HEC Laptop Scheme
- **2021- cont**. Head of R&D, Aeronautic & Astronautics Dept., ***IST***
- **2021- cont**. Head of OHT Conduct Committee & CEP Aeronautic & Astronautics Dept., ***IST***
- **2022- cont.** Faculty In-charge AIAA society
- **2022** Team Head Open House management
- **2020-2021** Departmental Coordinator & Academic Officer, Mechanical Eng. Dept, ***NUTECH***
- **2020-2021** OBE & IPE Coordinator, Mechanical Eng. Dept, ***NUTECH***
- **2018-2020** ISO (9001:2015) Intra-University ***(WEC)*** Auditor
- **2018** Coordinator: For University ISO Certification (9001:2015) ***WEC***
- **2018** Coordinator: For HEC Post-Graduate Affiliation, ***WEC***
- **2017** Member Committee: For Undergraduate PEC Mechanical Engineering Affiliation
- **2017** Faculty In-charge Professional Society Mechanical Engineering (PSM), ***WEC***

TRAINING /WORKSHOPS / Seminars

- **2026** **AI Literacy for Faculty Members for HEI, NAHE-HEC**
- **2022** **Seminar** attended on "**Disruptive Technologies-Impact on Future Warfare",** CASS,
- **2022** **Workshop on "**ELSEVIER- **Reviewer workshop: How to get the most out of being a reviewer of scientific articles**
- **2022** **Workshop on "**ELSEVIER- **Empowering knowledge on ethical publishing: Mastering the art of identifying predatory, fake and cloned journals**"
- **2021** **Technology Entrepreneurship**: Lab to Market, ***Harvard, USA***, (EdX-online)
- **2021** Workshop on Application of "**Design Thinking for Transformation**" NUTECH, ISB
- **2020** Introduction to Self-Assessment Report (SAR) Standards, KASBIT, Karachi
- **2020** Training on "**ISO 2001:2018 Internal Auditor**" **UOW**, (***CONSTCH)***
- **2018** Workshop on "**Experimental Aerodynamics**" IST, ISB
- **2018** Training on "**ISO 9001:2015 Internal Auditor**" UOW, (***CONSTCH)***
- **2017** Training on "**Implementation of Quality Management System**" UOW, (***CONSTCH)***
- **2017** Workshop on 1st National Seminar on **Wind Tunnel Experimental Techniques** & Associated Computational Methods at DESTO, ISB
- **2013** Workshop on "**Significance of Pakistan Space Technology**" IST
- **2013** Professional Teacher Training, Roots College International
- **2008** Trainee Engineer Honda Empire Motors, Mirpur

UNDER GRADUATE SUPERVISED PROJECTS

1. **2026** Aerodynamic Design and Fabrication of the Bio-Morphed UAV
2. **2026** Design and Modeling of Amphibious Quadcopter with Dual Speed Gearbox
3. **2026** CFD-Based Stability and Glide Performance Analysis of a Fixed-Wing Passive Gliding
4. **2026** Design and Development of supersonic UAV with Adaptive Payload
5. **2025** Machine Learning-Driven Optimization of UAV Aerodynamics Using CFD Simulations

for Enhanced Performance

6. **2025** Design and Stealth Capability Assessment for a HALE UAV
7. **2025** Optimizing Supersonic Nozzle Designs for Thrust Vectoring using Jet Vanes and Jet Tabs
8. **2025** Design and CFD analysis of nozzle optimization for thrust in thermal propulsion system
9. **2025** Aerodynamic Analysis and Performance Evaluation of Cycloidal Rotor Systems in UAVs
10. **2025** Fabrication and analysis of miniature helicopter
11. **2024** CFD Analysis, Design and Fabrication of Transonic Co-Flow Jets to Control Separation (IGNITE Funded)
12. **2024** Fabrication of Metal Detector Quadcopter and designing an algorithm for metal prediction
13. **2024** Reducing helicopter rotor blade noise for improved military operations through geometric modification.
14. **2024** Conceptual Design and Computational Analysis of an Interceptor
15. **2024** Conceptual Design and Analysis of micro UAV (NASTP-project)
16. **2023** Design & Development of Autonomous Caged Quadcopter
17. **2023** A multi-disciplinary design optimization of an aircraft propeller for UAV application.
18. **2023** Analysis, Design and fabrication of Pelton Wheel Turbine with Auxiliary attachments
19. **2023** Design and Analysis of Thermo-Acoustic Refrigeration system
20. **2023** CFD Analysis of Fourier Transformation Blade Fluttering of Turbine
21. **2023** Deep Learning Prediction of Military Aircraft Detection in Defined Space
22. **2018** Design & Fabrication of Paper Recycling Machine
23. **2017** Enhanced Penetration of 125mm APFSDS ***(collaborated research with POF***)
24. **2017** CFD Analysis of 81mm Mortar **(*collaborated research with POF)***
25. **2017** The feedback control mechanism of the Automatic Tyre Inflation System