



## Capital University of Science and Technology

Islamabad Expressway, Kahuta Road, Zone-V, Islamabad

Phone: +92 51 111 555 666, Fax: 92 51 4486705

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### 15<sup>th</sup> Meeting of the ORIC Steering Committee

Minutes of Meeting held on September 11, 2025

- The 15th meeting of the ORIC Steering Committee (OSC) was held in hybrid mode on Thursday, September 11, 2025, from 11:00 AM to 12:00 PM in the Workshop Room, B-Block, CUST, chaired by the Vice Chancellor.
- Dr. Muhammad Mansoor Ahmed, Chairperson of the ORIC Steering Committee and Vice Chancellor CUST, presided over the meeting.

The following members were present in the meeting physically.

Dr. M. Mansoor Ahmed	Vice Chancellor	Chairperson
Dr. Nayyer Masood	Dean, ORIC	Member
Dr. Muzaffar Abbas	Dean, Faculty of Pharmacy	Member
Dr. Amir Qayyum	Professor, CS	Member
Dr. Majid Ali	HoD, CE	Member
Dr. Nadeem Anjum	HoD, SE	Member
Dr. Sohail Ahmad Jan	Associate Professor, BI&BS	Member
Dr. Ahsan M. Ahmed	Assistant Professor, MS	Member
Dr. Maria Khalid	Deputy Director, ORIC	Secretary
Dr. Sahar Fazal	Dean, BI & BS	By invitation
Dr. Rizwan UrRehman	Associate Professor, BI & BS	By Invitation
Dr. Muhammad Irfan	Associate Professor, ME	By Invitation
Mr. Syed Awais Hyder	Principal Lecturer, SE	By Invitation

The following members attended the meeting online.

Mr. Abdul Qadeer	Director, Berkeley	Member
Mr. Tahir Mahmood Ch.	CEO, Falcon Engineering	Member
Mr. Bilal Farooq	Founder, Consulting 360	Member
Mr. Farrukh Mehmood	CEO, 11 Values	Member

The following attended the meeting by invitation

Mr. Muhammad Umair	Assistant Manager Research, ORIC
Ms. Aasia.	Assistant Manager, I&C, ORIC

- Students of Dr. Muhammad Irfan and Mr. Syed Awais Haider were also present in the meeting. The chairperson welcomed all the members of the ORIC Steering Committee to its



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15<sup>th</sup> meeting. He then invited Dr. Nayyar Masood, Dean ORIC to commence the presentation. Subsequently the committee deliberated upon the following agenda items at length and took the following decisions.

Item No.	Description	Decision/Action Required
1	<b><u>Confirmation of the Previous Meeting Minutes</u></b> It was informed that no other observation on the decisions taken in 14 <sup>th</sup> meeting of the ORIC Steering Committee held on June 30, 2025, already circulated amongst the members of the Committee was received. Therefore, the ORIC Steering Committee confirmed the minutes of its 14 <sup>th</sup> meeting.	Minutes Confirmed
2.	<b><u>NRPU Project Presented by Dr. Rizwan Ur Rahman</u></b>	
2.1	Dr. Rizwan Ur Rehman, Associate Professor, BI & BS presented the progress of the NRPU project titled “Isolation and identification of therapeutic agents involved in the activation of PPAR-Y to ameliorate Type 2 Diabetes (NRPU 16186)”	Dr. Rizwan Ur Rehman and Dr. Nayyer Masood to confirm extension of project from HEC
2.2	This project was approved in 2022, and the first installment was received in August 2024 after some delays due to issues with bank account opening. Under the supervision of Dr. Rizwan, nearly 50% of the first objective has already been achieved. Chromatography was performed on extracts obtained from okra, bitter gourd, and other medicinal plants. The analysis produced more bands than initially anticipated, indicating a greater diversity of compounds in the extracts.	
3.	<b><u>Modular Proposal for Biosciences Lab</u></b> The Dean ORIC requested Dr. Sahar Fazal, Dean, FHLS, to present his Bio Lab proposal before the house. Dr. Sahar formally presented the proposal for establishing and strengthening the Bio Lab, outlining the essential requirements for both foundational and core facilities. She emphasized the importance of creating a strong infrastructure to support research, and future commercialization activities within the department. After reviewing the proposal, the Chairperson and the honorable Vice Chancellor acknowledged the significance of this initiative and expressed full support. It was mutually agreed that Phase I budgeting, within the range of 18-34 million, would be allocated to cover the initial setup of these foundational and core facilities, ensuring that the labs	Dr. Sahar Fazal to submit proposal for module 1 of lab



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could function effectively and provide long-term benefit to faculty and students alike.

## **4. Selected FYPs Presentation for Incubation under Cohort-5**

Two final year projects (FYPs) were selected for the presentation in this meeting.

### **4.1**

The Dean ORIC invited Dr. Muhammad Irfan, Associate Professor in the Department of Mechanical Engineering, along with his two students, Abdullah Rahman (BME213002) and Zaryab Ahsan (BME213007), to present their Final Year Project (FYP) titled "*Design and Development of Parabolic Trough Solar Collector for Enhanced Thermal Performance.*". The objective is to heat water using a solar-powered parabolic trough collector. The students explained that their design incorporated a chromium coated surface, which was intended to enhance durability and efficiency as compared to conventional collectors. They highlighted how the innovative structure was supported by a robust tracking system, allowing the solar trough to follow the sun's path more accurately.

Industrial members suggested clarity on the novelty of FYP

The Chair advised for better testing of parabolic project

In addition, the team emphasized the practical application of their design, particularly its potential integration with insulated water tanks to maximize energy conservation. The Vice Chancellor took a keen interest in the presentation and raised technical questions, specifically regarding the inlet and outlet design of the collector. These queries helped the students further elaborate on the efficiency of fluid flow within the system and the measures taken to minimize thermal losses. The discussion underscored the importance of engineering innovation in addressing energy challenges and provided valuable feedback for refining the project.

### **4.2**

The second Final Year Project (FYP), titled '*Autonomous Drone Delivery System for Medical Supplies*' was carried out by a group comprising Mr. Syed Awais Haider with students Farhad Ali (BSE221026), Hammad Mustafa (BSE221031), and Zunaira Manzoor (BSE221061). The team explained that their project aimed to address emergency response challenges by using drones to transport essential medicines and supplies. As a proof of concept, they had tested the system with Cheezius as a potential client, demonstrating the broader commercial relevance of drone-based delivery. The project, however, brought forward important discussions around regulatory approval, particularly from the Civil Aviation Authority (CAA), and technical considerations such as GPS-based location tracking and reliable navigation in urban environments.

Vice Chancellor advised students to measure actual delivery time during testing



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The panel engaged actively with the presentation, raising questions and offering feedback. Mr. Abdul Qadeer asked about the accessibility of drones to the wider public, while the Vice Chancellor focused on boundary definitions and the robustness of GPS reliability. Mr. Farrukh Mehmood inquired about cost effectiveness, payload capacity, and location accuracy, pointing to practical deployment challenges. In contrast, Mr. Tahir M. Chaudhry appreciated the feasibility of the system and remarked that technology itself posed no major barrier. The Vice Chancellor also asked whether a functional prototype drone had been flown, to which the supervisor clarified that while initial conceptual testing had been completed, boundary definition and field deployment would be undertaken in the next project phase.

## 5. **ORIC Activities Brief (July-August 2025)**

Dean ORIC started his briefing about ORIC activities from the efforts made in the Industrial Outreach and the Linkages domain including the following:

- 1) **University Industrial Outreach Committee (UIOC):** The Dean ORIC informed the committee about the UIOC visits with their purpose & outcomes.
- 2) **Trainings attended & arranged:** Dean ORIC informed the Committee of the trainings conducted by ORIC under Faculty Development Program (FDP). These trainings were organized focusing on
  - a) “Writing research grant proposal for funding”. This training was held for faculty members. Of Faculty and Computing.
  - b) “Defining and managing budget of research project”. The training was held by Ms. Noshaba Awais, Director R & I, HEC. This training was for the faculty members of Faculty of Computing.
  - c) “Intellectual Property and Commercialization of FYPs and Research”. The training was conducted by Mr. Pervez Abbasi of AdVentures, and it was for all the faculty members of the university.

## 6. **General Discussion**

6.1 After the presentations, the Vice Chancellor initiated a general discussion with faculty members present before external members were bid farewell. He asked Dr. Majid, HOD Civil Engineering, about his research on earthquake proof houses made from recycled plastic jug waste. Dr. Majid shared that frequency tests at 5-6 Hz had confirmed stability and that 2-3 papers had already been published with more underway.

Vice Chancellor suggested the following:

Renovation of prototype home for residential use



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**6.2** The Vice Chancellor also asked Dr. Sahar about the number of MS and PhD slots in Biosciences, to which she responded with 30 MS and 10 PhD. He further informed the house that a Chinese company had shown interest in collaboration and suggested the establishment of new centers, such as a Plant Genetics Centre. In his closing remarks, the Vice Chancellor expressed concern over declining enrollment (around 20%) at schools, colleges, and universities, stressing the importance of skill development centers.

- Establish Skills Development Centers for employability  
More visible display of online meeting

Respecting time constraints, the meeting was adjourned with sincere appreciation expressed to all participants for their valuable contributions and active engagement.

Prepared by:

**Dr. Maria Khalid**

Secretary ORIC Steering Committee

Endorsed by:

**Dr. Nayyer Masood**

Dean ORIC

Approved by:

**Dr. Muhammad Mansoor Ahmed**

Vice Chancellor CUST

Chairperson ORIC Steering Committee