



الكلية الدولية للهندسة والإدارة
International College of
Engineering & Management



ICEM RESEARCH NEWSLETTER



Issue 3/November 2022

THE RESEACH COUNCIL - OMAN (TRC) AWARDS

ICEM RESEARCH GRANTS

The international college of engineering and management submitted proposals to TRC under the block funding program 2022, and those proposals were awarded funds. The total amount of research grants issued is 29,000 OMR, which is divided into grants worth 20,000 OMR (Grant 1), 3,000 OMR (Grant 2), and four grants for undergraduate research with a total allowed budget of 6,000 OMR. One of the college's most fruitful years in terms of receiving this recognition from The Research Council Oman under the Block Funding Program 2022 is this one. The table below can be used as reference to the specifics of the proposals and awards.

These grants are affirmations by the TRC on the role the college play toward research and innovation in the Sultanate.

Title of the Proposal	Grant Type	Approved Fund (OMR)
Development of a new green ultra-high Performance fiber reinforced cementitious composites with high fiber resistance	Research Grant (RG)	20,000
Experimental investigation of fire behavior and smoke flow pattern in unevenly shaped compartment ceiling	Graduate Research Grant (GRG)	3,000
Insightful study on integrating the use of nichrome wire for heavy crude oil transportation	Undergraduate Research Grant (URG)	1,500
Design and development of a novel portable bench scale apparatus for measuring the thermal radiation from process industry fires.	Undergraduate Research Grant (URG)	1,500
Effect of chemical exposure on the health and safety of pharmaceutical workers in Sohar, Oman	Undergraduate Research Grant (URG)	1,500
A study on ocean thermal energy as potential renewable energy sources for Oman – Experimental perspective	Undergraduate Research Grant (URG)	1,500

ICEM AWARDS INTERNAL RESEARCH GRANTS TO STAFF

The system for awarding research grants has been standardized by ICEM as part of its commitment to encourage research among college community. Several staff obtain the grant each year based on the applications they submitted for review. The grantee will receive the required amount and one year from the grant's award date to complete the research.

Details of the recipients of the internal grants are shown as follows:

Title of the Proposal	Grant Reference Code	Project Duration
Continuous Professional Development (CPD) Activities and Engagements of Higher Education Graduates of Covid19 Pandemic Era	IRG-ICEM 2022/23-02	Sep 2022 to Aug 2023
Optimization the performance of hybrid coagulation application for organic and heavy metals removal from industrial wastewater	IRG-ICEM 2022/23-01	Sep 2022 to Aug 2023
Developing a predictive model for real-time physiological performance of firefighters using machine learning method	IRG-ICEM 2022/23-03	Sep 2022 to Aug 2023
Synthesis of sandstone cores for porosity and rock lithological factors KNN prediction model	IRG-ICEM 2022/23-04	Sep 2022 to Aug 2023
Investigating Safety Management Practices and their influences on Occupational Safety Performance in Construction Industries of Oman	IRG-ICEM 2022/23-05	Sep 2022 to Aug 2023
Study on Isolation and Characterization of Antimicrobial components from Avicenna marina Mangrove Plant species	IRG-ICEM 2022/23-06	Sep 2022 to Aug 2023
Performance evaluation of packed bed column with biological media for treatment of contaminated water	IRG-ICEM 2022/23-07	Sep 2022 to Aug 2023

STUDENTS RECEIVE OUTSTANDING DISSERTATION COMMENDATION FROM ICEM

23 June 2022. The International College of Engineering and Management's Research and Ethics Committee (REC) interviewed candidates for the Best Dissertation Award. AP. Dr. Girma T. Chala presided over the interviewing panel, which also included Dr. Shahnawaz Khan, Dr. Javad Hashempour, Dr. Ghassan Al Doori, Dr. Sreejaya KV, Dr. Suvarna Raju, Victor Otolaiye, Alex Bernard, and Azza Al Saaidi. A 10-minute presentation is followed by a 10-minute question-and-answer period in an interview. The competition was based on the best dissertation from each of the four departments: Health, Safety and Environmental Management (HSEM), Well Engineering (WE), Facilities Management (FM), and Fire Safety Engineering and Management (FSEM) (HSEM).

Eight questions from the panel were asked after a student gave an introduction lasting around five minutes to begin the interview. Each question receives a score out of 5, and the average grade for a given question is calculated using the scores of two members. The panellists' additional inquiries, though, did not pertain to the evaluation criteria. Each participant demonstrated a solid understanding of their field and skilfully responded to the majority of the panel's queries. The Best Dissertation Award has been given to Mr. Al Moatasim Al Kalbani of the Well Engineering Department.

The following are the candidates for the outstanding dissertation award:

1. Student's Full Name: Shatha Moamer Mohsin AL Shikhani

Project Title: Safety Practices and Causes of Accidents in Construction Projects in Oman.

Department: Facilities Management.

2. Student's Full Name: Nadra Saif Abdullah Al Harthy

Project Title: A study on the Performance Improvement of Solar Water Heater – Experimental Approach.

Department: Health, Safety, and Environmental Management.

3. Student's Full Name: Al Moatasim Khamis Sanad Al-Kalbani

Project Title: Experimental Investigation of Filtration Rate of Water Base Mud with Zinc Oxide, Silica Oxide and Date Palm Stem Nanoparticles.

Department: Well Engineering

4. Student's Full Name: Maram Khalfan Albulushi

Project title: Investigating Effect of spacing on merging behavior of two circular acetone pool fires.

Department: Fire Safety Engineering/Management.

Ministry of Commerce, Industry and Investment Promotion Oman Awards ICEM Students' Final Projects Patent Registration

An invention is a product or a technique that, in general, offers a new way of doing something or presents a new technical solution to a problem. A patent is an exclusive right awarded for an invention. Technical details concerning the innovation must be made public in a patent application in order to be granted one (WIPO, 2022). The International College of Engineering and Management is in jubilation to announce that on 2 November 2021 and 25 August 2022, the College successfully registered two patents (Intellectual Property) with the Ministry of Commerce, Industry and Investment Promotion Oman. The first patent was registered to a study entitled 'A Novel Method for Flow Assurance of Heavy Crude Oil in Transportation Pipelines' by Mohammed Saud Al Balushi and Girma T. Chala. The second patent was on "Development of a fluid used for drilling oil and gas wells using nanoparticles from the stem of the date palm", by the team of Almoatasim Alkalbani, Girma T. Chala, and Alhaitham Alkalbani.

