



# ICEM RESEARCH NEWSLETTER



الكلية الدولية للهندسة والإدارة  
International College of  
Engineering & Management

## ICEM secures external grant of OMR 29,000 in 2022 from The Research Council (TRC) Oman

### Research Grant (RG)

**Project title:** Development of a new green ultra-high-performance fiber reinforced cementitious composites with high fiber resistance.

**Approved budget:** OMR 20,000

**Brief:** This study is aimed at utilising plastic wastes (PWs) in Oman to develop a new green retrofitting material which will be patented and known as 'ICEM-Reinforced Concrete (ICEMRC)'.

**Investigator (s):**



Dr. Majed Aldahdooh  
FM department



Dr. Rami Hamad  
FM department

### Graduate Research Grant (GRG)

**Project title:** Experimental investigation of fire behavior and smoke flow pattern in an unevenly shaped compartment ceiling.

**Approved budget:** OMR 3,000

**Brief:** Fire tests are planned to be carried out in an unevenly shaped ceiling compartment such as rectilinear, slope, and curvilinear compartments using Diesel Pool Fire to study the effect of ceiling on compartment fire behavior and smoke flow pattern. By varying the ventilation parameters and heat release rates, a parametric study will be conducted in these compartments. The test results will be considered to investigate the accuracy of currently available empirical correlations in predicting the ceiling jet temperature, smoke flow pattern, centerline temperature of externally venting flame and other influences on fire spread mechanism. Further, this research is expected to validate existing empirical correlation's applicability in an unevenly shaped compartment such as sloped and semi cylindrical compartments.

**Investigator (s):**



Mrs. Sabra Al Shukairi  
FSEM department



Mr. Anoop Warriar  
FSEM department



icemsocial

+968 24512000

www.icem.edu.om

ICEM Research Newsletter December 2022

# Undergraduate Research Grant (URG)

**Project title:** Insightful study on integrating the use of nichrome wire for heavy crude oil transportation.

**Approved budget:** OMR 1,500

**Brief:** Oil flows naturally to the surface during production because of the reservoir pressure. However, for heavy crude oil, transportation appears to be challenging in many instances, principally due to the high wax content of the crude oil. There have been different methods adopted to alleviate these detrimental issues; however, most of these were reported to have an influence on the environment and are costly too. As part of finding other option of alleviating the deposition of wax in heavy crude oil, this study is aimed at investigating the use of Nichrome wire for flow assurance purposes. As this method will cost minimal, it is believed that this would pave forward for utilizing this method in the instances of transporting waxy crude oil. This, in turn, enhances the production efficiency of oil both at onshore and offshore fields.

### Investigator (s):



Noor Nasser Al Hashli  
Current year 4 student  
WE Department

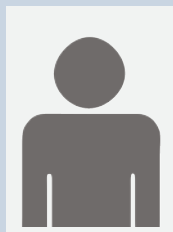
Dr. Girma T. Chala  
Supervisor  
WE Department

**Project title:** Design and development of a novel portable bench scale apparatus for measuring the thermal radiation from process industry fires.

**Approved budget:** OMR 1,500

**Brief:** The number of fire accidents resulting in significant loss has increased in the last two decades. As a result, knowing the safe distances from various fires with various fuels is important. Knowledge of the Page 2 of 7 radiative environment of potential fire scenarios is extremely useful for planning firefighting strategies, as it allows determining whether a specific fire can be approached; if so, how closely personnel and equipment can approach it; and, as a result, what equipment and strategy should be used in an emergency response plan. This study intends to estimate the thermal radiation hazard from combustible liquid fires experimentally and determine the safe distance by characterization of liquid fires using a novel testing apparatus.

### Investigator (s):



Al Montaser Al Ghassani  
Current year 4 student  
FSEM Department



Mr. Sivi Varghese  
Supervisor  
FSEM Department

**Project title:** Effect of chemical exposure on the health and safety of pharmaceutical workers in Sohar, Oman.

**Approved budget:** OMR 1,500

**Brief:** The global pharmaceutical industry has contributed significantly to improving human health, wellbeing, and living standards through the provision of drugs, medicines, supplements, and vaccines. Despite its global importance, the industrial-scale production of pharmaceuticals exposes workers and the public to hazardous and toxic chemicals, intermediates, and byproducts, which pose grave risks to health, safety, and the environment. Hence, there is an urgent need to critically assess, examine, and highlight the health and safety risks associated with exposure to pharmaceutical chemicals, processes, and wastes streams in nations seeking to grow and develop their pharmaceuticals industry.

### Investigator (s):



Maryam Al Naaimi  
Current year 4 student  
HSEM Department



Victor O. Otitolaiye  
Supervisor  
HSEM Department

**Project title:** A Study on ocean thermal energy as potential renewable energy sources in Oman – Experimental perspective.

**Approved budget:** OMR 1,500

**Brief:** Ocean Thermal Energy Conversion (OTEC) converts the energy from solar radiation to electrical power. The temperature gradient at the ocean is the key for thermal energy conversion via OTEC systems. It was reported that an OTEC system can produce a significant amount of power if the temperature difference between warm surface water and the cold deep water could reach 20°C. As its impact on the surrounding environment is minimal, it is projected that Oman could potentially utilize this energy source in the future. There are several other synergistic products from OTEC other than the production of electricity. In this study, the potential of OTEC in Oman will be investigated via experimental approach. As Oman is significantly surrounded by Oceans this would be a step forward in utilizing the clean energy and bringing electricity to local power distribution networks.

### Investigator (s):



Riyam Al Riyami  
Current year 4 student  
WE Department



Dr. Girma T. Chala  
Supervisor  
WE Department

# ICEM secures an external research grant of USD 5,000 in 2022 from its affiliate, the University of Central Lancashire (UCLan), UK

**Project title:** Externally Venting Flames (EVF) dynamics and development in non-orthogonal geometries.

**Approved budget:** USD 5,000

**Brief:** The aim of the project is to conduct a numerical investigation of the mechanism of external fire spread in curvilinear façade systems and their impact on the building using Computational Fluid Dynamics (CFD) by Fire Dynamics Simulator software, and to assess the capability of existing fire engineering design correlation developed for EVF on non-orthogonal geometries in relation to the outcome of this study.

**Investigator (s):**



Mr. Anoop Warriar  
FSEM department



# ICEM awards an internal grant of OMR 4,100 in AY 2022 - 2023

**Project title:** Optimizing the performance of hybrid coagulation application for organic and heavy metals removal from industrial wastewater.

**Approved budget:** OMR 500

**Brief:** The study aims to evaluate the performance of hybrid (AIC13/date seed powdered) coagulant system for organic and heavy metals removal from industrial wastewater treatment.

**Investigator (s):**



AP. Dr. Salem S. Abu Amr  
HSEM department



Dr. Riyad Mahfud  
HSEM department



**Project title:** Continuous Professional Development (CPD) Activities and Engagements of Higher Education Graduates of Covid19 Pandemic Era.

**Approved budget:** OMR 450

**Brief:** This study aims to investigate the common CPD activities and the level of engagement of higher education graduates of Covid19 pandemic period.

**Investigator:**



Dr. Don Anton  
PPD Department

**Project title:** : Study on Isolation and Characterization of Antimicrobial components from Avicenna marina Mangrove Plant species.

**Approved budget:** OMR 500

**Brief:** The research project examines and highlights the phytochemical and antimicrobial properties of Avicenna marina species for future pharmacological, ethnomedicinal, and therapeutic applications.

**Investigator:**



Dr. P. Suvama Raju  
HSEM department



**Project title:** Performance evaluation of packed bed column with biological media for treatment of contaminated water.

**Approved budget:** OMR 700

**Brief:** This design study utilizes biological Silica Sand (SS) and biological Granular Carbon (GC) as filter media in a packed bed column for treatment of water that contaminated with methylene blue (MB) and colloidal solids (CS).

**Investigator (s):**



AP. Dr. Salem S. Abu Amr  
HSEM department



Dr. Riyad Mahfud  
HSEM department

**Project title:** Investigating Safety Management Practices and their influences on Occupational Safety Performance in Construction Industries of Oman.

**Approved budget:** OMR 400

**Brief:** The aim of this study is to investigate the relationship between management practice in safety and SMP of construction industries in Muscat.

**Investigator (s):**



Victor O. Otitolaiye  
Supervisor  
HSEM Department

**Project title:** Synthesis of sandstone cores for porosity and rock lithological factors KNN prediction model.

**Approved budget:** OMR 700

**Brief:** The aim of this study is to investigate the potentials of synthetic sandstone cores for oil and gas lab scale research and to develop a KNN prediction model for porosity and lithological factors affecting the reservoir physical characteristics.

**Investigator (s):**



Mr. Asif Zamir  
WE Department

**Project title:** Developing a predictive model for real-time physiological performance of firefighters using machine learning method.

**Approved budget:** OMR 850

**Brief:** This study intends to apply machine learning method to develop models that facilitate real-time estimation of firefighters' physiological performance. The model assists with preventing any hazardous cardiovascular health condition that firefighters can be exposed during their operation.

**Investigator (s):**



Dr. Javad Hashempour  
FSEM Department



Dr. Sohaib K.M. Abujayyab  
FSEM Department

## ICEM staff publish papers in ISI/Scopus Journals in 2021-2022



**AP. Dr. Girma T. Chala**  
WE Department

**13 papers published in ISI/Scopus Journals**

**Two Recent Publications:**

1. Girma T. Chala, and Negash, B.M., 2022. Artificial Neural Network and Regression Models for Predicting Intrusion of Non-Reacting Gases into Production Pipelines. *Energies*, 15(5), p.1725.

<https://www.mdpi.com/1996-1073/15/5/1725>

2. Alkalbani, A.M., Girma T. Chala, and Myint, M.T.Z., 2022. Insightful study on the effect of zinc oxide nanoparticle diameter on the rheology of water base mud at elevated temperature. *Journal of Petroleum Science and Engineering*, p.110878.

<https://www.sciencedirect.com/science/article/abs/pii/S0920410522007343>



**AP. Dr. Salem S. Abu Amr**  
HSEM Department

**13 papers published in ISI/Scopus Journals**

**Two Recent Publications:**

1. Salem S. Abu Amr, Abujazar M.S.S., Karaağaç S.U., Mehdi K.K., Alazaiza M.Y.D., Bashir M.J.K., Fatihah S., and Vakili A.H. (2022) Factorial design and optimization of date stone as a natural coagulant for organic and heavy metals removal from industrial wastewater, *Global NEST Journal*, 25,1, 99-107, <https://doi.org/10.30955/gnj.004486>

2. Salem S. Abu Amr, Abbas F.M. Alkarkhi, Mohammed Shadi S. Abujazar, Motasem Y.D. Alazaizad, Wasin A.A. Alqaraghuli, Rami J.A. Hamad, Yahya Özdemir, Eiman Ibrahim (2022) Multivariate models for the effect of two coagulants on palm oil mill effluents, *Desalination and Water Treatment*, 276, 93 – 1011



**Mr. Victor O. Otitolaiye**  
**HSEM Department**

**7 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Victor O. Otitolaiye and Al-Harethiya, G.M., 2022. Impacts of petroleum refinery emissions on the health and safety of local residents. Journal of Air Pollution and Health, 7(1), pp.69-80.  
<https://japh.tums.ac.ir/index.php/japh/article/view/336>
2. Victor O. Otitolaiye, Ubana DO, Suvarna Raju P, Otitolaiye AD., 2022. Uncovering Research Trends in Safety Culture in the Global Construction Industry: A Bibliometric Analysis (1995-2020), International Journal of Occupational Safety and Health.  
<https://www.nepjol.info/index.php/IJOSH/AcceptedNextIssue>



**Dr. Rami Hamad**  
**FM Department**

**6 papers published in ISI/Scopus Journals**

**Two Recent Publications:**

1. Aldahdooh M.A.A., Hamad, R.J.A., Bashir M.J.K., Bunnori. N.M., Johari Johari M.A.M., Al Mawali S. (2022), Improving Damaged Reinforced Concrete Beams Failure Behavior Using Externally Bonded UHPFRCs System, International Journal of Civil Engineering. <https://doi.org/10.1007/s40999-022-00734-z>
2. Hamad, R.J.A., Al Hallaq, K.A., Tayeh, B.A., Nassar, S.S. (2022), 'Risk Analysis and Waste Management for Construction and Demolition Projects in the Gaza Strip', Jordan Journal of Civil Engineering, Jordan Journal of Civil Engineering, 16(3), pp. 417-435



**Mr. Asif Zamir**  
**HSEM Department**

**5 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Rasool, M.H., Asif Zamir, Elraies, K.A., Ahmad, M., Ayoub, M. and Abbas, M.A., 2022. A Deep Eutectic Solvent based novel drilling mud with modified rheology for hydrates inhibition in deep water drilling. Journal of Petroleum Science and Engineering, p.110151.  
<https://www.sciencedirect.com/science/article/abs/pii/S0920410522000456>
2. Abbas, M.A., Asif Zamir, Elraies, K.A., Mahmood, S.M., Asfattahi, N., Saidur, R., Ahmad, M. and Rasool, M.H., 2022. Characterization of nano based drilling fluid for shale swelling inhibition. Petroleum Science and Technology, pp.1-27.  
<https://www.tandfonline.com/doi/abs/10.1080/10916466.2022.2048014>



**Dr. P. Suvarna Raju**  
**HSEM department**

**5 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Suvarna Raju P., Otitolaiye, V.O., Mahfud, R. and Al Rawahi, M., 2022. Impacts of mercury exposure on human health, safety and environment: Literature review and bibliometric analysis (1995 to 2021). International Journal of Occupational Safety and Health, 12(4), pp.336-352.  
<https://www.nepjol.info/index.php/IJOSH/article/view/43125>
2. Suvarna Raju P, Al-Ghassani M, Victor O. Otitolaiye, Faris Omer, Riyadh Mahfud, 2022. Effects of Discharged Effluents from Desalination Plants on Marine Living Organisms, International Journal of Mechanical Engineering. [https://kalaharijournals.com/resources/FebV7\\_I2\\_358.pdf](https://kalaharijournals.com/resources/FebV7_I2_358.pdf)



**Dr. Faris Omer**  
**HSEM Department**

**4 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Victor O. Otitolaiye, AAF Shah, Faris Omer, 2022. Organizational Factors, Critical Dimensions, and Measurement Instruments for Safety Culture: A Concise Review. Petroleum & Coal 64 (1).  
[https://www.vurup.sk/wp-content/uploads/2022/04/PC-X\\_Otitolaiye\\_114.pdf](https://www.vurup.sk/wp-content/uploads/2022/04/PC-X_Otitolaiye_114.pdf)
2. Suvarna Raju P, Al-Ghassani M, Victor O. Otitolaiye, Faris Omer, Riyadh Mahfud, 2022. Effects of Discharged Effluents from Desalination Plants on Marine Living Organisms, International Journal of Mechanical Engineering. [https://kalaharijournals.com/resources/FebV7\\_I2\\_358.pdf](https://kalaharijournals.com/resources/FebV7_I2_358.pdf)



**AP. Dr. Majed Aldahdooh**

**FM Department**

**4 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Aldahdooh M.A.A., Hamad, R.J.A., Bashir M.J.K., Bunnori. N.M., Johari Johari M.A.M., Al Mawali S. (2022), Improving Damaged Reinforced Concrete Beams Failure Behavior Using Externally Bonded UHPFRCCs System, International Journal of Civil Engineering. <https://doi.org/10.1007/s40999-022-00734-z>
2. Ng, Y.L., Aldahdooh, M.A.A., Alazaiza, M.Y., Bashir, M.J., Chok, V.S. and Ng, C.A., 2022. Influence of alum sludge ash and ground granulated blast furnace slag on properties of cement mortar. Cleaner Engineering and Technology, 6, p.100376. <https://www.sciencedirect.com/science/article/pii/S2666790821003360#>



**Dr. Riyad Mahfud**

**HSEM Department**

**3 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Suvarna Raju P, Al-Rawahi, M, Riyad Mahfud, Victor O. Otitolaiye., 2022. Effects of Mercury Concentration on the Health and Safety of Oil and Gas Workers, International Journal of Occupational Safety and Health. <https://www.nepjol.info/index.php/IJOSH/AcceptedNextIssue>
2. Suvarna Raju P, Al-Ghassani M, Victor O. Otitolaiye, Faris Omer, Riyad Mahfud, 2022. Effects of Discharged Effluents from Desalination Plants on Marine Living Organisms, International Journal of Mechanical Engineering. [https://kalaharjournals.com/resources/FebV7\\_I2\\_358.pdf](https://kalaharjournals.com/resources/FebV7_I2_358.pdf)



**Dr. Sohaib K.M. Abujayyab**

**FSEM Department**

**3 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Abujayyab, S. K. M., Kassem, M. M., Khan, A. A., Wazirali, R., Coşkun, M., Taşoğlu, E., Öztürk, A., & Toprak, F. Wildfire (2022). Susceptibility Mapping Using Five Boosting Machine Learning Algorithms: The Case Study of the Mediterranean Region of Turkey. Advances in Civil Engineering, Volume 2022, No 3959150. <https://doi.org/10.1155/2022/3959150>
2. Raniyah Wazirali, Mohammed Shadi S. Abujazar, Sohaib K.M. Abujayyab, Rami Ahmad, Suja Fatihah, A.E. Kabeel, Sakine Ugurlu Karaağaç, Salem S. Abu Amr, Motasem Y.D. Alazaiza, Mohammed J.K. Bashir, Ibrahim Y. Sokar. Productivity modelling of an inclined stepped solar still for seawater desalination using boosting algorithms based on experimental data. Volume 276(2022)28-39 DOI. <https://doi.org/10.5004/dwt.2022.28960>



**Mr. Alhaitham Alkalbani**

**WE Department**

**2 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Alkalbani, A.M., Girma T. Chala, and Myint, M.T.Z., 2022. Insightful study on the effect of zinc oxide nanoparticle diameter on the rheology of water base mud at elevated temperature. Journal of Petroleum Science and Engineering, p.110878. <https://www.sciencedirect.com/science/article/abs/pii/S0920410522007343>
2. AL-Kalbani, A.M., Girma T. Chala, and Myint, M.T.Z., 2021. Experimental investigation of rheological properties of water-base mud with zinc oxide nanoparticles using response surface methodology. Journal of Petroleum Science and Engineering, p.109781. <https://www.sciencedirect.com/science/article/abs/pii/S0920410521014029>



**Dr. Emain Ibrahim**

**HSEM Department**

**2 papers published in ISI Journals/Scopus Journals**

**Two Recent Publications:**

1. Salem S. Abu Amr , Abbas F.M. Alkarkhi , Mohammed Shadi S. Abujazar , Motasem Y.D. Alazaizad, Wasin A.A. Alqaraghuli , Rami J.A. Hamad , Yahya Özdemirf , Eiman Ibrahim (2022) Multivariate models for the effect of two coagulants on palm oil mill effluents, Desalination and Water Treatment, 276, 93 – 1011
2. Mohammed Shadi S. Abujazar, Sakine Ugurlu Karaağaç, Salem S. Abu Amr, Suja Fatihah, Mohammed JK Bashir, Motasem Y.D. Alazaiza and Eiman Ibrahim, 2022. The Effectiveness of Rosehip Seeds Powder as a Plant-Based Natural Coagulants for Sustainable Treatment of steel Industries Wastewater" Desalination and Water Treatment.



# ICEM Students publish papers from final Year Projects in AY2021-2022

1. Rami Hamad, Tayeh, B.A. and Al Aisri, H.A., 2021. Critical Factors Affecting the Success of Construction Projects in Oman. Journal of Sustainable Architecture and Civil Engineering, 29(2), pp.121-138.

<https://www.sace.ktu.lt/index.php/DAS/article/view/29269>

2. Alkalbani, A.M., Girma T. Chala, and Myint, M.T.Z., 2022. Insightful study on the effect of zinc oxide nanoparticle diameter on the rheology of water base mud at elevated temperature. Journal of Petroleum Science and Engineering, p.110878.

<https://www.sciencedirect.com/science/article/abs/pii/S0920410522007343>

3. AL-Kalbani, A.M., Girma T. Chala, and Myint, M.T.Z., 2021. Experimental investigation of rheological properties of water-base mud with zinc oxide nanoparticles using response surface methodology. Journal of Petroleum Science and Engineering, p.109781.

<https://www.sciencedirect.com/science/article/abs/pii/S0920410521014029>

4. Alsedrani, M.Q. and Girma T. Chala, 2022. Investigation of the Effects of Silica Nanofluid for Enhanced Oil Recovery Applications: CFD Simulation Study. Arabian Journal for Science and Engineering, pp.1-20.

<https://link.springer.com/article/10.1007/s13369-022-07113-9>

5. Suvarna Raju P, Al-Ghassani M, Victor O. Otitolaiye, Faris Omer, Riyadh Mahfud, 2022. Effects of Discharged Effluents from Desalination Plants on Marine Living Organisms, International Journal of Mechanical Engineering.

[https://kalaharijournals.com/resources/febV7\\_I2\\_358.pdf](https://kalaharijournals.com/resources/febV7_I2_358.pdf)

6. Suvarna Raju P, Al-Rawahi, M, Riyadh Mahfud, Victor O. Otitolaiye., 2022. Effects of Mercury Concentration on the Health and Safety of Oil and Gas Workers, International Journal of Occupational Safety and Health.

<https://www.nepjol.info/index.php/IJOSH/AcceptedNextIssue>

7. Victor O. Otitolaiye and Al-Harethiya, G.M., 2021. Health effects of refinery emissions on residents living near refineries. A case study of an undisclosed area in Oman. Health, 8(9).

<https://www.jmest.org/wp-content/uploads/JMESTN42353866.pdf>

8. Suvarna Raju P, Otitolaiye VO, Mahfud R, Al Rawahi M (2022), Impacts of Mercury Exposure on Human Health, Safety and Environment: Literature Review and Bibliometric Analysis (1995 to 2021)

<https://www.nepjol.info/index.php/IJOSH/AcceptedNextIssue>.

9. Victor O. Otitolaiye and Al-Harethiya, G.M., 2022. Impacts of petroleum refinery emissions on the health and safety of local residents. Journal of Air Pollution and Health, 7(1), pp.69-80.

<https://japh.tums.ac.ir/index.php/japh/article/view/336>

ICEM Alumni appointed as a reviewer to the Editorial Board of the Petroleum Research Journal to review peer-reviewed scientific papers



Alhatham Alkalbani  
WE Graduate

# ICEM conducts the third virtual international undergraduate research conference from 3-4 October 2022

**Brief:** ICEM 3rd Virtual International Undergraduate Research Conference was held from 3-4 October 2022 with 23 presentations and a participation of more than 100 attendees. The internationalization of this conference was possible due to the diversity of speakers from different parts of the world namely: USA, Malaysia, Philippines, and Oman. The opening remarks of Dr. Yingkui Zhao, ICEM Dean, emphasized on ICEM's commitment to fostering research through collaboration and networking, echoing the Ministry of Higher Education, Research, and Innovation (MOHERI) requirements.

**Co-chaired by:**



Dr. Don Anton  
PPD Department



Dr. Javad Hashempour  
FSEM Department

The poster for the ICEM 3rd Virtual International Undergraduate Research Conference provides the following details:

- Event:** ICEM 3<sup>rd</sup> Virtual International Undergraduate Research Conference
- Theme:** "Celebrating research achievements from the grassroots level." This conference serves as a venue for knowledge-sharing between undergraduate students across engineering and management fields. This platform would also provide opportunities for student researchers to discuss their research findings to further advance their research scopes ahead. Graduating students are welcome to present their final projects, dissertations, field and case studies, or assignments related but not limited to Health, Safety and Environmental Management (HSEM), Fire Safety Engineering, Fire Safety Management, Mechanical (Weld) Engineering, Facilities Management, Business Management, Social Issues, Current Trends, Teaching, and Learning.
- Date:** 3 - 4 October 2022 (Monday - Tuesday)
- Time:** 9:00 AM - 3:00 PM
- Platform:** Microsoft Teams
- QR Code:** Provided for easy access to the conference.
- Speakers and Topics:**
  - Dr. Parvath Ramesh: Topic: Strengthening Science Curriculum Through a Marine Museum.
  - Dr. Sami Al-Abidi Omer Ghani: Topic: Methodological Research Writing Process.
  - Dr. Javad Hashempour: Topic: The role of performance-based approach in fire safety design.
  - Dr. Reynolds Sarker Rejman: Topic: Navigating Business and Management Research: Theoretical and Practical Underpinnings.
  - Dr. Hani Saleh: Topic: An overview of biological storage safety.
  - Dr. Mohammed Bader: Topic: Emerging Pathogens in the Water Sources: Classification and Potential Risks.

# ICEM staff co-supervises two postgraduate students in international universities

Dr. Salem S. Abu Amr, Associate Professor, in the HSEM Department is co-supervising two postgraduate students in the field of environmental engineering in Malaysia and Turkey.

**Student name:** Muneer Mohammed Ahmed Ayash.  
**Programme:** Master of Engineering Technology (Chemical Engineering)  
**Institute:** University of Kuala Lumpur (UniKL)- Malaysian Institute of Chemical & Bioengineering Technology.



The main supervisor  
Associate Professor Dr. Abbas Alkarkhi  
University Kuala Lumpur, Malaysia



Co-Supervisor  
Associate Professor Dr. Salem S. Abu Amr  
(ICEM), Oman

**Student name:** Karrar Kareem Mahdi Al-hamad.  
**Programme:** Master of Engineering (Environmental Engineering).  
**Institute:** University of Karabuk - Faculty of Engineering.



The main supervisor  
Associate Professor Dr. Sakine UGURLU KARAAĞAÇ  
University of Karabuk, Turkey,  
Department of Environmental Engineering



Co-Supervisor  
Associate Professor Dr. Salem S. Abu Amr  
International College of Engineering &  
Management (ICEM), Oman

# ICEM final year students register Patents

1. Title: Development of fluid used for drilling oil and gas wells using nanoparticles from the stem of the date palm.

## Inventors:



Almotasim Alkalbani  
WE Department



AP. Dr. Girma T. Chala  
WE Department



Alhatham Alkalbani  
WE Department

2. Title: A Novel Method for Flow Assurance of Heavy Crude Oil in Transportation Pipelines.

## Inventors:



Mohammed Al Balushi  
WE Department



AP. Dr. Girma T. Chala  
WE Department

# ICEM offers the "Best Researcher" Award



Associate Professor  
Dr. Girma T. Chala  
WE Department



Associate Professor  
Dr. Majed Aldahdooh  
FM Department



Mr. Asif Zamir  
WE Department



# Internal and external research experts share knowledge and good practices

Staff and students benefitted from a series of seminars and workshops conducted by research experts in specialized fields which included:

- "Multidisciplinary Research Opportunities in Fire Protection/Safety Engineering" by Dr. Javad Hashempour (FSEM) on 25 November 2021.
- Research Proposal – Methodology Writing" by Dr. P. Suvarna Raju (HSEM) on 2 December 2021.
- Actions for Climate Resilience – Coastal Wetlands and the UN Ocean Decade (2021-2030)" by Prof. Dr. Nidhi Nagabatla, Senior Fellow and Cluster Coordinator, United Nations University – CRIS, Belgium and McMaster University, Canada on 3 February 2022.
- "Essential Skills to Succeed: The Role of Academic Libraries and Academic Institutions" by Dr B. Shadrach, Consulting Expert -UNESCO, UNEVOC-Germany on 3 March 2022.
- "Introduction to Engineering Research" by Assoc. Prof. Dr. Firas Basim Ismail Alnaimi, Malaysia on 24 March 2022.
- "Research Methodology & Results Analysis" by Dr Don Anton Balida on 31 March 2022.
- "Converting Research Thesis into Journal Paper" by Dr. M. Shah Nawaz Khan - FSEM on 27 April 2022.
- "Numerical Investigation of the Effect of Ventilation Conditions of Externally Venting Flames on Curvilinear Geometries" by Anoop Warriar, PhD Student, UCLan, UK on 12 May 2022.

