No.	Content	Page No.
1	Structural Behavior Investigation of Reinforced Concrete Tapered Solid and Hollow Section Columns under Axial Load Hadi Nasir Ghadhban Asst. Prof. Dr. / College of Engineering / AL-Mustansiriya University / Baghdad Dr. Mahmood Shukri Mahmood College of Engineering / AL-Mustansiriya University / Baghdad	1 - 18
2	Competitive Removal of Cu ²⁺ , Zn ²⁺ and Ni ²⁺ by Iron Oxide (Fe ₃ O ₄) Nanomaterial Shahlaa E. Ebrahim Prof. Dr. / Environmental Engineering Department/ University of Baghdad/ Baghdad Hasanain S. Alhares Environmental Engineering Department/University of Baghdad/Baghdad-Iraq	19 - 44
3	Implementation of Vibration Suppression on an Aircraft Wing Using Velocity Feedback Controller Ahmed A. Ali Asst. Prof. Dr. / College of Engineering / Mechanical Engineering Dept. /University of Baghdad / Baghdad Hussain Y. Mahmood Prof. Dr. / College of Engineering / Mechanical Engineering Dept. /University of Baghdad / Baghdad Iraq Mahmood Wael Saeed Dr. / College of Engineering / Mechanical Engineering / University of Baghdad	45 - 64
4	Transport of Pb(II) through bulk liquid membrane containing tri-n-butyl phosphate as a carrier Ahmed A. Mohammed Asst. Prof. Dr. / Environmental Engineering Department/ University of Baghdad/ Baghdad Maad A. Hussein Environmental Engineering Department / University of Baghdad / Baghdad	65 - 79
5	Improvement the Mechanical properties of Al-Pb Alloy Prepared by Mechanical Alloying Adnan N. Abood Prof. Dr. / Technical Engineering College / Middle Technical University Nabeel kadim Abid Alsahib Prof. Dr. / College of Engineering / AL-Nahrain University / Baghdad Suhair Ghazi Hussein College of Engineering / Mechanical Engineering Dept. / University of Baghdad	80 - 90
6	Factors Affecting in Cost Estimation Process for Construction Residential Projects Abbas M. Burhan Dr. / College of Engineering / University of Baghdad / Civil Engineering Dept. / Baghdad Humam S. Hussein College of Engineering / University of Baghdad / Civil Engineering Dept. / Baghdad	91 - 102

7	Investigation of Vertical and Pitch Road Vehicle Dynamic Responses to Improve the Critical Speed Using Controllable Semi-Active PID Suspensions Dr. Karim Hassan Ali Asst. Prof. Dr. / College of Engineering / Mechanical Engineering Dept. /University of Baghdad / Baghdad Farah Ayad Abdul Majeed College of Engineering / Mechanical Engineering Dept. /University of Baghdad	103 - 112
8	An Approach for Embedding the Colored Secret Image based on Multi-Cover Sharing Scheme Mahmood Zaki Abdullah Asst. Prof. / College of Engineering / Computer Engineering Dept. / Al-Mustansiriyah University / Baghdad zinah jamal Khaleefah College of Engineering / Computer Engineering Dept. / Al-Mustansiriyah University / Baghdad	113 - 126
9	An Automated Energy Metering System Using Mobile Smartphone Surah Adel Mahmod College of Engineering / Chemical engineering dept. / Al Muthanna University / Baghdad Dafer Rzok Saker Law college / Al Muthanna University / Baghdad	127 - 136
10	Comparative analysis of Fuzzy MCDM methods for material selection in biomedical application Ahmed Flayyih Hussein Asst.Lecturer / Production Engineering and Metallurgy / University of Technology / Baghdad Khalid Karam Abd Asst. Prof. / Production Engineering and Metallurgy / University of Technology / Baghdad	137 - 148
11	Output Feedback Controller of Electric Drive based Variable Speed Induction Motors Ali Abdul Razzaq Asst. Prof. / College of Engineering / Electrical Engineering Dept. / University of Kerbala / Baghdad	149 - 162
12	An Algorithm for Fault Detection and Identification of Iraqi Distribution Network Using Wavelet-Neural Network Technique Afaneen Anwer A. Al-Khazraji College of Engineering / Electrical Engineering Dept. / University of Technology / Baghdad	163 - 173
13	Investigation of pattern recognition system based on electromyography signals for optimal electrodes' number and positions Yasir Hassan Jaffar Mechatronics Engineering Department /AL Khwarizmi College of Engineering /University of Baghdad /Baghdad-Iraq Ali Hussein Ali Al-Timemy Dr. /Biomedical Engineering Department / AL Khwarizmi College of Engineering /University of Baghdad /Baghdad-Iraq	174 - 188

14	Effects of Properties and Simulations for Dry Granular Soils on Buckling Loads of Portal Frames Dr. Salah R. Al Zaidee Lecturer/ Civil Eng. Dept./College of Engineering/University of Baghdad Teghreed H. Ibrahim Asst. lecturer/ Civil Eng. Dept./College of Engineering/ University of Baghdad Ehab G. Al Hasany M. Sc. Student/ Civil Eng. Dept./College of Engineering/University of Baghdad	189 - 200	
15	Static and Dynamic Performance of Journal Bearings lubricated with Nano-Lubricant Basim A. Abass Asst. Prof. / College of Engineering / Mechanical Engineering Dept. / University of Babylon / Baghdad Muhammed Abd-Alrasool College of Engineering / Mechanical Engineering Dept. / University of Babylon / Baghdad	201 - 212	
16	Experimental Investigation of Externally Post Tension Composite Ultra High Performance Concrete-Steel Girder AbdulMutlib I. Said Prof. Dr. / College of Engineering / Civil Engineering Dept. / University of Baghdad / Baghdad Larah Riyadh Abdulwahed College of Engineering / Civil Engineering Dept. / University of Baghdad / Baghdad	213 - 231	
17	The Mechanisms of Achieving a Smart city Shaimaa Hameed Hussain Asst. Prof. / College of Engineering / AL-Nahrain University / Baghdad Nawras Motathud Mohammed College of Engineering / AL-Nahrain University / Baghdad	232 - 246	
Index			