

CONTENTS

Seq.	Title	Page
1.	Experimental and mathematical evaluation of the refrigeration system performance with different ambient temperature..... <i>Dr. Ahmed Abed Mohammed, Ali Abas Nasser</i>	1
2.	Mathematical finite element model for general analysis of double curved shell according to strain based approach..... <i>Dr. Hayder Abdul Ameer Mehdi</i>	20
3.	Experimental verification of strut and tie method for reinforced concrete deep beams under various types of loadings..... <i>Khatab Saleem Abdul-Razzaq, Sarah Farhan Jebur</i>	39
4.	Effect of using internal packaging materials for new building walls on heating load..... <i>Dr. Hassan Kareem Abdullah, Sajjad Shakir Ali</i>	56
5.	The Strength and leaching behaviour of scrap metal contaminated soils using cementitious materials..... <i>Dr. Khitam Abdulhussein Saeed</i>	69
6.	Experimental investigation of using new shape augmentations for enhancing heat transfer in heat exchangers <i>Nassr Fadhil Hussein</i>	80
7.	Predictive study of laminar natural convection in supercritical fluid along vertical flat plate..... <i>Dr. Adil Abbas Mohammed, Saad Abdulwahab Razuqi</i>	92
8.	Numerical and theoretical study on the effect of heat transfer and fluid flow on the hydraulic tank..... <i>Dr. Rafa Abbas Hassan, Dr. Assel Khaleel Shyaa, Ali Kadhim Khudadad</i>	107
9.	Simple drone for object color detection..... <i>Dr. Malik Abdulrazzaq Alsaedi</i>	118
10.	Structural behavior of reinforced concrete vierendeel truss to use in precast construction..... <i>Dr. Jamal Saeed Abdul Ameer, Dr. Hadi Nasir Ghadhban, Mustafa Abdul Hussein Hassan</i>	131

11.	Approximate solutions for solving two types linear integral equations by using bou-baker polynomials method	148
	<i>Balasin Taha Abdilrazak</i>	
12.	Ground water flow and water budget for tharthar lake.....	155
	<i>Dr. Thair Sharif Khayyun, Mustafa Majeed , Ahlam sadir</i>	
13.	Design fuzzy pid controller for nonlinear systems	178
	<i>Sami Abdulaziz Ali</i>	