

Table of Contents

Non-Destructive Microcrack Detection in Inconel 718 Using Electromechanical Impedance of Bonded PZT Sensors: A Numerical Sensitivity Study G. Haydarlar, M.A. Sofuoğlu and M. Tekkalmaz	1
LEAPET: A New Energy Efficient Routing Protocol for Wireless Sensor Networks K.B. Adedeji, S.F. Ayeomoni and W. Lawal	11
Enhancing the Productivity of a Single-Slope Solar Still Using a Preheating System A.H. Majeed, T.A. Jabbar and A.A. Ateeq	27
Numerical Investigation of Natural Heat Convection in a Triangular Enclosure with a Varying-Diameter Cylindrical Heat Source S.H. Faisal, T.A. Jabbar, R.S. Abdulrahman and F.A. Ibrahim	39
Comprehensive Review of Diffusion Absorption Refrigeration: Advances, Challenges, and Future Prospects E.A. Malik, S.H. Faisal and R.S. Hameed	51
Thermo-Hydraulic Performance of Natural Convection in a Triangular Enclosure with a Vertically Displaced Heat Source F.I. Abdalsalam, R.S. Abdulrahman, T.A. Jabbar and S.H. Faisal	69
Performance Evaluation of Air Conditioning System Using Blend Refrigerant as a Low-GWP Alternative to R410A under Different Conditions M.K. Kazem and A.K.S. Alsayyab	81
Recent Progress in Fin Configuration Optimization for Phase Change Material Melting A.A. Khalaf and H. Togun	91
A Comparative Analysis of V2G and G2V Potentials in Clean Mobility for Pakistan and Sub-Saharan Africa R. Rehan and K. Siraj	109
The Future is Electric: Unlocking Africa's Potential for Clean and Affordable Transport D. Adesina	127
Assessment of the Effectiveness of a Miniature Pyrolysis Pilot Plant Developed to Manage Plastic Waste Generated in Ovia North-East LGA, Nigeria E.K. Orhorhoro, A.A. Erameh and E.U. Emifoniye	139