

Table of Contents

Preface

Chapter 1: 3D Printing

Effect of Infill Density on Electrical Sensitivity of 3D-Printed Flexible Pressure Sensors Using Ultrasonication Cavitation-Enabled Treatment and Thermal-Assisted Method S. Wu, C. Aumnate, P. Potiyaraj and P. Kungsadalpipob	3
Morphology and Deviation Dimension of Hydroxyapatite/Collagen Composite after Printing with Three-Dimensional Bioprinting N. Nurbaiti, M.K. Herliansyah, A.E. Tontowi, M.G. Widiastuti and H.V. Hoten	9
Study of the Factors on Controlling Cured Layer Thickness in DLP 3D Printing C.S. Shin, C.Y. Lu and C.L. Lin	15

Chapter 2: Synthesis and Characteristics of Biofuels

Performance and Combustion Characteristics Analyses of Mustered Seed Oil B60 with Different Compression Ratio V. Naresh, K.K. Senthil and A.M. Nafeena	23
Experimental Investigation of Operating Parameter Effect on DI CI Diesel Engine Using Flamboyant Biodiesel Blends V.D. Kumar, S. Rajendran, V.B. Hemadri, C. Prakash and S. Sengottaiyan	33

Chapter 3: Materials for Construction Purposes

Hygrothermal and Energy Performance Optimization on Bio-Based Envelope Integrated with PCM D.X. Wu, Z.N. Yao and Y. Shi	45
Structure Reconstruction and Transfer Properties of Porous Material by Multiple Approaches X.Y. Ma, R. Bennacer and L.F. Chen	53

Chapter 4: Mechanics of Construction Structures

Effect of Concrete Slab Thicknesses to the Deflection of a Composite I-Steel Long Span Girder Validated with Bridge Loading Test Results I.R. Tambunan and H. Purnomo	63
Effect of Construction Stages to Long-Term Behavior of a Long-Span Pre-Stressed Concrete Girder Bridge E. Manru and H. Purnomo	71

Chapter 5: Solar Desalination

Experimental Analysis of a Single Slope Solar Still with a Solar Pond M.M. Kumar, S. Rajesh and S.J.P. Gnanaraj	81
Improving Solar Desalination Efficiency with Combined Techniques: Evacuated Tubes, Corrugated Fins, and Blue Metal Stones K.S. Maheswari, K. Mayandi, S.J.P. Gnanaraj and V. Jeyasingh	93