Journal of The Institution of Engineers (India): Series C

Volume 103 · Issue 3 · June 2022

ORIGINAL CONTRIBUTIONS

An Experimental Exploration on Pressure-Compensated Swash Plate-Type Variable Displacement Axial Piston Pump N. Mondal · R. Saha · D. Sanyal 267

Assessment of Musculoskeletal Problems among Bangladeshi University Students in Relation to Classroom and Library Furniture Md. Shohel Parvez · N. Tasnim · S. Talapatra · A. Ruhani · A.S.M.M. Hoque 279

Automotive Fire Control by Designing and Launching a New Intelligent System: Experimental Results, Automotive Notification Design, New Design **Comparison Chart** E. Mirmahdi · D. Afshari 293

Cell-Laden Alginate Hydrogel Modelling using Three-Dimensional (3D) Microscale Finite Element Technique A. Banerjee · A.R. Chowdhury · S. Datta · P. Datta 301

Comparative Economic Analysis of Injection-Moulded Component with Conventional and Conformal Cooling Channels D. Singh · K. Joshi · B. Patil 307

Correlation of Galling Resistance and Hardness of Plain Carbon Steel H. Doley · S. Singh 319

Design of Cooling System for an Automotive using Exhaust Gasses of Turbocharged **Diesel Engine** Q.R. Al-Amir · M.F. Al-Dawody · A. Abd 325

Development of Economical Plant Transplanter S. Chethan · K. Srinivasa · J. Madivalkar · M. Nadeem Mahaboob · N. Yathisha 339

Experimental Investigation of Spark Ignition Engine Performance Fuelled with various Pomegranate **Ethanol-Gasoline Mixtures** D.Y. Dhande · N. Sinaga · K.B. Dahe 347

Finite Element Analysis of the Influence of Microstructure on the Mechanical Properties of SiCp/Al Composites M. Zhang · L. Zhou · C. Song · W. Zhu 359

Free Vibration Analysis of Laminated Composite Plate with Elastic Point and Line Supports using Finite Element Method S. Ghosh · S. Haldar · S. Haldar 369

Gain Scheduled Finite Horizon LQR for Approach and Landing Phase of a Reusable Launch Vehicle A.S. Hameed · G.R. Bindu 381

Genetic Algorithm-Based Fundamental Frequency Optimization of Laminated Composite Shells Carrying **Distributed Mass**

S. Pal · K. Kalita · S. Haldar 389

Influence of Die Threading and Finishing Length in the Thread-Rolling Process Using Flat Dies: A Numerical Analysis L. Giorleo · M. Cartapani 403

Infrared Suppression Technologies for Marine Platforms K.K. Choudhary · P.V.S.G. Kumar · A.V.S.N. Murty 413

Investigating the Effects of Adding Butene, Homopolymer to Gasoline on Engine Performance Parameters and Pollutant Emissions: Empirical Study and Process Optimization S. Davari · F. Ommi · Z. Saboohi 421

Investigations on Effects of Varying Ignition Delay

Period for the Sunflower Oil Methyl Ester V.V. Patil · R.S. Patil 435

Optimization and Analysis of Design Parameters, Excess Air Ratio, and Coal Consumption in the Supercritical 660 MW Power Plant Performance using Artificial Neural Network G. Naveen Kumar · E. Gundabattini 445

Optimization of Biomass fuel Cold Briquetting Parameters based on Response Surface Analysis Z. Li · H. Zou 459

Research on Matching and Selection of New Type of Marine Gas-Electric Hybrid Power System X. Sun · C. Yao · E. Song · H. Bai · K. Li 473

RSM-Based Parameter Optimization of Compression Ignition Engine Fueled with Diesel Blended with Two **Biofuels: Rice Bran and Karania** N. Kaushal · P. Kumar 485

Spatio-Temporal Variability of Tidal Velocities in the Rivers of the Indian Sundarban Delta: A Hydrodynamic Modelling Approach K. Bhui · S. Hazra · T. Bhadra · V. Venugopal 493

CASE STUDY

Capturing Steam Energy Leaks in the Steam Distribution Network Using an Integreated Method: A Case Study of a Petroleum Refinery R.P. Singh · M.B. Sorte · M.M. Jagtap 509

REVIEW PAPERS

A Review on Techniques for Solar Still Efficiency Enhancement R. Srinath · S. Saravanan · A.K. Singh 519 Application of Structure with Negative Poisson's Ratio for Vibration Isolation of Pipeline Supports X. Yan · X. Wang · Z. Zhang · T. Yu · H. Han 535

CORRECTION

Correction to: The Small Punch Test a Viable Alternate for In-service Components Preserved Strength Estimation P. Patel · B.K. Patel 543

Further articles can be found at link.springer.com

Instructions for Authors for J. Inst. Eng. India Ser. C are available at http://www.springer.com/40032