

Table of Contents

ICECS 2011 Session 1

Land Suitability Analysis Using Geographic Information System (GIS) for Hillside Development: A case study of Penang Island <i>Intiaz Ahmed Chandio and Abd Nasir Bin Matori</i>	1
Statistical Downscaling and Bias Correction for Projections of Indian Rainfall and Temperature in Climate Change Studies <i>Kaustubh Salvi, S Kannan and Subimal Ghosh</i>	7
Direct Conversion of Wind Energy into Heat Using Joule Machine <i>Roustiam Chakirov and Yuriy Vagapov</i>	12
RECYCLING OF ENERGY BY THE UTILIZATION OF A PIEZOELECTRIC CRYSTAL AND MICROCONTROLLER <i>Sandhya T, Ajay Sampath, Arjun A.M., V.Arvind and Gautam Aggarwal</i>	18
CO ₂ Sequestration by Alkaline Wastes for Potential Application in the Landfill Environment <i>Anjali Gupta and Arvind Kumar Nema</i>	24

ICECS 2011 Session 2

The Simulation of the Oil Weathering Processes in Marine Environment <i>Kameleh Aghajanloo and Moharam Dolatshahi Pirooz</i>	29
Investigation of Abandoned Metal Mine Effect on Watershed <i>Kyoung-Kyoon Choi and Jeong-Hun Park</i>	35
Remediation of Naphthalene and Phenanthrene Contaminated Soil by Extraction Using Superheated Water <i>Young-tae Jo and Jeong-Hun Park</i>	38
Ozone Level Emitted from Photocopiers and Its Exposure <i>Aungsiri Tipayarom and Danutawat Tipayarom</i>	42
Estimating Rainfall Erosivity of the Revised Universal Soil Loss Equation from daily rainfall depth in Krishanagiri Watershed region of Tamil Nadu, India <i>Arun Babu Elangovan and Ravichandran Seetharaman</i>	48

ICECS 2011 Session 3

The Usage of Saline Water in Desert (Review) <i>Maryam Naeimi and Gholamreza Zehtabian</i>	53
Hardness Removal from Groundwater by Synthetic Resin from Waste Plastics <i>Prapat Pentamwa, Wipasinun Thiphara and Suparat Nuangon</i>	59
Electrochemical Treatment of Textile Dye Wastewater Using Stainless Steel Electrode <i>Usha N Murthy, H.B Rekha and . J.G Bhavya</i>	64
Numerical Simulation of Regional Ozone Transboundary Pollution to the Philippines <i>Gerry Bagtasa</i>	69
Automatic Recognition System for some cyanobacteria using image processing Techniques and ANN approach	73

ICECS 2011 Session 4

- Removal of Nutrients from Landfill Leachate Using Subsurface Flow Constructed Wetland Planted With *Limnocharis flava* and *Scirpus atrovirens* 79
Ain Nihla Kamarudzaman, Nor Shazwani Ismail, Roslaili Abdul Aziz and Mohd Faizal Ab Jalil
- Study of Point and Non Point Sources Pollution – A Case Study of Timah Tasoh Lake in Perlis, Malaysia 84
Ain Nihla Kamarudzaman, Voon Kim Feng, Roslaili Abdul Aziz and Mohd Faizal Ab Jalil
- Evaluation of RBF, GR and FFBP Neural Networks for Prediction of Geometrical Dimensions of Scour Hole Below Ski-Jump Spillway 89
Shayan Naini
- Framework for Tropical Ecological Data Warehouse (TEDW) FOR Governance and Maintenance of Tropical Lakes 94
Hui Cham, Sorayya Bibi Malek Binti Malek Abd Rashid, Sharifah Mumtazah Syed Ahmad and Aishah Binti Salleh
- Automatic Road Extraction on Aerial Photo and Laser Scanner Data 99
Claudionor Ribeiro da Silva, Jorge Antônio Silva Centeno and Maria João Henriques

ICECS 2011 Session 5

- Research Methodology for the Test Automation of Truck Controller Software System 104
Mr.Ajay Palkar and Ms.Priya Deshpande
- Crop Water Consumption and Crop Yield Prediction under Climate Change Conditions at Northeast of Iran 112
Nasrin Sayari, Mohammad Bannayan, A. Farid, Amin Alizadeh and Masoud Reza Hessami Kermani
- Daily Rainfall Forecasting for Mashhad Synoptic Station using Artificial Neural Networks 118
Najmeh Khalili, Saeed Reza Khodashenas, Kamran Davary and Fatemeh Karimaldini
- Bovine Rectal Bacteria Can Solve COD Problems with Acetate Liquor and Restaurant Kitchen-Sink Wastewater 124
Othman, A.R., Seswoya, R., Hamdan, R, Muda, N.A. and Zakaria, N.H.
- The Effects of Global Environmental Changes and Reduction of Water Sources on the Growth and Yield of Barley Genotypes 128
Saeid Yazdchi

ICECS 2011 Session 6

- Simulation of River Flow Using Fourier Series Models 133
Ali Saremi, Mohammad Hossein Karimi Pashaki, Hosein Sedghi, Amin Rouzbahani and Amin Saremi
- Aerobic Granulation under Low Selection Pressure 139
WANG Miao, LI Jun, WEI Su, NI Yongjiong and LIU Jun
- Investigation of Antipseudomonal Activity of *Brassica Napus* L. 144
Katayoon Dastan, Akram Tehranifard and Mahdi Vazirian

Effect of L-carnitin on Cadmium Induced Toxicity in Rat Embryo Hippocampus <i>Mina Ramezani, Hossin Bahadoran and Soheila Abasi</i>	147
Solidification- Stabilization Technique for Metal bearing Solid Waste from Zinc Industry –A case study <i>A.K.Vyas</i>	151
ICECS 2011 Session 7	
Elemental Analysis of Ground Water from Different Regions of Punjab State (India) Using EDXRF Technique and the Sources of Water Contamination <i>Atul Bhalla, Gurjeet Singh, Sanjeev Kumar, J.S. Shahi and D. Mehta</i>	156
NTSYSpc 2.02e Implementation in Molecular Biodata Analysis (Clustering, Screening, and Individual Selection) <i>Soleiman Jamshidi and Samira Jamshidi</i>	165
GIS-based Probability Assessment of Fire Risk in Grassland and Forested Landscapes of Golestan Province, Iran <i>Hamed Adab, Kasturi D. Kanniah and Karim Solaimani</i>	170
Ambient Air Temperature Forecasting Using Artificial Neural Network Approach <i>Mahboubeh Afzali, Afsaneh Afzali and Gholamreza Zahedi</i>	176
Determining Microbial Dynamics of Polyhydroxyalkanoates –Producing Consortium in Waste Glycerol using RISA Technique <i>H. T.Wattanaphon, S. Ciesielski and N. Pisutpaisal</i>	181
Determining the Effectiveness of Harapan Lake as Flood Retention Pond in Flood Mitigation Effort <i>Arniza Fitri, Zorkeflee Abu Hasan and Aminuddin Abdul Ghani</i>	186
Author Index	193