Contents

Keynote Speech: The Advantages of Involving Women in Sustainable Development Planning .......................... 1
Susan Buckingham

Keynote Speech: Development of Solid Waste Management ......................... 3
Nie Yong-Feng

Plenary Lecture: Tariff – Its Importance for Sustainability of Power Sector ....................................................... 5
Shah Zulfiqar Haider

Plenary Lecture: South Asia and Management of Energy Security ................................................................. 7
Musarrat Jabeen

Modeling of Energy and Environment for Sustainable Development .............................................................. 9
B.K. Bala

Sustainable Development Indicators for Energy in Pakistan .......... 25
Abdul Khalique Ansari and Imran Nazir Unar

Status and Need of Energy Education: The Case of Pakistan ............ 39
Umar K. Mirza, Khanji Harijan, and Tariq Majeed

Survival of Textile Sector Through Energy Management and Monitoring ......................................................... 49
Asad Mahmood
Forecasting Electricity Demand for Agricultural and Services Sector of Pakistan ................................................................. 59
Gordhan Valasai, Mohammad Aslam Uqaili, Hafeez ur Rehman Memon,
and Khanji Harijan

Solar Drying Technology: Potentials and Developments ...................... 69
B.K. Bala and Serm Janjai

A Promising Technology of Pressure into Power: A Case Study of Pressure into Power Approach in Gas Transmission Lines in Pakistan .............................................................. 99
Imran Nazir Unar, Suhail A. Soomro, Shaheen Aziz, Abdul Rehman Memon,
and Khan M. Qureshi

Technologies for Harnessing Tidal Power in Pakistan ....................... 111
Raza Haider Leghari, Mohammad Aslam Uqaili, and Khanji Harijan

Utilizing Solar Thermal Energy in Textile Processing Units ............. 121
Asad Mahmood and Khanji Harijan

Wind Power Performance Improvements Using Artificial Neural Network Controller for DC–DC Converter ......................... 131
Mukhtiar Ahmed Mahar, Abdul Sattar Larik, Mohammad Rafiq Abro,
Mohammad Aslam Uqaili, Mukhtiar Ali Unar, and Abdul Rasheed Shaikh

Practical Application of Solar Energy at Desert of Tharparkar, Pakistan ..................................................... 141
R.S. Abro, Mohammad Aslam Uqaili, Suresh Kumar, Khanji Harijan,
and Muhammad Yaseen

Ethanol Production from Molasses Using an Indigenous Strain of Thermotolerant *Kluyveromyces marxianus* Under Controlled Conditions ......................................................... 147
Shaheen Aziz, Hafeez ur Rehman Memon, Farman Ali Shah, M.I. Rajoka,
and Suhail A. Soomro

Fluidization in Cold Flow Circulating Fluidized Bed System ............ 161
Ahsanullah Soomro, Saleem Raza Samo, and Ahmed Hussain

Assessment of Land-Based Pollution Sources in the Mediterranean Sea Along Gaza Coast – Palestine ............................................. 175
Hossam Adel Zaqoot, Taysir Saleem Hujair, Abdul Khalique Ansari,
and Shaukat Hayat Khan
Contents

Impact of Sewage Water on Quality of Fullali Canal
Water, Hyderabad, Sindh, Pakistan .................................................. 191
Sumera Qureshi, G.M. Mastoi, Allah Bux Ghangro, and A. Waheed Mastoi

Environmental Impact of Untreated Effluents from Sugar Industry:
A Case Study ..................................................................................... 199
Abdul Rehman Memon, Suhail A. Soomro, Shaheen Aziz,
and Imran Nazir Unar

Environmental Impacts of KPT Commercial Office Building,
Karachi .................................................................................................. 207
Khursheed Ali Amur, Dost Ali Khuwaja, and Khan Muhammad Brohi

Catalytic Effect of BL and BL+Ca Mixed Catalyst on Sulfur-Containing
Gasses of Pakistani LigniteChars ..................................................... 219
G.R. Jaffri and J.-Y. Zhang

Improved Sustainability of Cotton Sulfur Dyeing
by Pad-Ox Processes ................................................................. 229
Awais Khatri, Abdul Salam, Fahmina Absarullah, and Rafia Anwar

Industrial Effluent Treatment by Photocatalytic Degradation of Sodium
Dodecylbenzensulfonate (DBS) ......................................................... 237
Mukhtar Ul-Hassan, A. Jabbar Chaudhary, Suhail A. Soomro,
and Shaheen Aziz

Municipal Solid Waste Management: Options for Its Treatment
and Energy Recovery ................................................................. 245
Suhail A. Soomro, Hafeez ur Rehman Memon, Mohammad Aslam Uqaili,
and Shaheen Aziz

Hospital Waste Generation and Management: A Case Study
of Hospitals in Karachi, Pakistan ..................................................... 253
Razia Begum, Suhail A. Soomro, Zulfiqar Dhakan, Shaheen Aziz,
and Abdul Rehman Memon

Modeling of Solid Waste Management Systems ....................... 265
B.K. Bala

Econtrol Dyeing Process: An Ecological and Economical
Approach ......................................................................................... 291
Shamshad Ali, Zeeshan Khatri, and Khan Muhammad Brohi
Cold Pad Batch Dyeing: Eco-friendly Dye Application on Cotton  .......... 299
Zeeshan Khatri, M. Hanif Memon, and Khan Muhammad Brohi

Environmental Policies for New Road Network of Pakistan
to Control Air Emissions .......................................................... 307
Khan Muhammad Brohi, Mohammad Aslam Uqaili, and Rasool Bux Mahar

Indigenous Knowledge: The Way to Sustainable Development –
Community Participation in Environmental Issues ......................... 321
Tauseef Lateef

New Stationary Phase Material for GC Separation of Organic
Compounds ................................................................. 329

Value-Added Product Recovery from Banana Plant Waste:
A Sustainable Way for Development ........................................... 339
Khan M. Qureshi, Suhail A. Soomro, Shaheen Aziz, and Imran Nazir Unar
Energy, Environment and Sustainable Development
Uqaili, M.A.; Harijan, K. (Eds.)
2012, XVI, 352 p., Hardcover
ISBN: 978-3-7091-0108-7