10th International Seminar on Industrial Engineering and Management 2017

Sustainable Development in Industry and Management

IOP Conference Series: Materials Science and Engineering
Volume 277

Tanjung Pandan, Indonesia
7 - 9 November 2017

Editor:

Rahmi Maulidya

ISBN: 978-1-5108-5495-6
ISSN: 1757-8981

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2017) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 277

10th International Seminar on Industrial Engineering and Management "Sustainable Development In Industry and Management"

7-9 November 2017, Tanjung Pandan - Belitung, Indonesia

Accepted papers received: 23 November 2017
Published online: 20 December 2017

Preface

10th International Seminar on Industrial Engineering and Management "Sustainable Development In Industry and Management"

Committee

Reviewer

Peer review statement

Papers

Decision Support System and Artificial Intelligence (DSS)

Characteristic and factors of competitive maritime industry clusters in Indonesia

N Marlyana, A E Tontowi and H A Yuniarto.....1

Warehouses information system design and development

R A Darajatun and Sukanta.....9

Consumer preference in using the services of bukalapak website with conjoint method

A B Batavio, W Tripiawan and H Amani.....17

Islamic value to the modification of BSC model (a case study in evaluating company performance)

Harwati and Y Permana.....22

Model business intelligence system design of quality products by using data mining in R Bakery Company

R Fitriana, J Saragih and N Luthfiana.....30

Analysis of performance measurement at HR-GR Department using the balance scorecard method

Vienni and M Bachtiar.....38

Information system and website design to support theautomotive manufacture ERP system

T G Amran, N Azmi and A A Surjawati.....46

Establishment proper of the balanced scorecard indicators to support decision making in a university: a case study in Institut Teknologi Indonesia

L Theresia, A H Lahuddin and R Bangun.....55

Dealing with dissatisfaction in mathematical modelling to integrate QFD and Kano's model

Dian Retno Sari Dewi, Joana Debora and Martinus Edy Sianto.....63

Mesh control information of windmill designed by Solidwork program

T. Mulyana, D. Sebayang, A.M.D. Rafsanjani, J. H. D Adani and Y. S. Muhyiddin.....69

Design local exhaust ventilation on sieve machine at PT.Perkebunan Nusantara VIII Ciater using design for assembly (DFA) approach with Boothroyd and Dewhurst method

K I Khalqihi, M Rahayu and M Rendra.....75

Decision Support Model for Selection Technologies in Processing of Palm Oil Industrial Liquid Waste

Aulia Ishak and Amir Yazid bin Ali.....82

The Application of Data Mining Techniques to Create Promotion Strategy for Mobile Phone Shop

A U Khasanah, K S Wibowo and H F Dewantoro.....91

Ergonomics

Conceptual design of real time and adaptive measure of mental workload using galvanic skin respond

A Widyanti.....98

Lean production design using value stream mapping and ergonomics approach for waste elimination on buffing panel upright process

M R Suryoputro, A D Sari, R Burhanudin and M Sugarindra.....102

A study of 6S workplace improvement in Ergonomic Laboratory

AD Sari, MR Suryoputro and FI Rahmillah.....109

Machinery safety of lathe machine using SHARP-systemic human action reliability procedure: a pilot case study in academic laboratory

M R Suryoputro, A D Sari, M Sugarindra and R Arifin.....116

Ergonomic Analysis of the Work Condition in Aluminum Crafts Industry

H Soewardi, A Taufiq and T Pradipta.....123

Development of the Strength Level on Arm for Indonesian People in Lifting Activity

H Soewardi, A D Prabaswari and H A Muzakiroh.....131

Design of disturbances control model at automotive company

I A Marie, D K Sari, P Astuti and M Teorema.....139

Design improvement of automated gallon washing machine to minimize musculoskeletal disorders (MSDs) in CV Barokah Abadi using ergonomic function deployment (EFD) approach

Z Fakhriza, M Rahayu and M Iqbal.....147

Mental workload measurement in operator control room using NASA-TLX

M. Sugarindra, M. R. Suryoputro and A. I. Permana.....155

Implementation of health and safety management system to reduce hazardous potential in PT.XYZ Indonesia

L Widodo, Adianto and D I Sartika.....161

Industrial Management

The importance of production standard operating procedure in a family business company

C Hongdiyanto.....170

Risk management for food and beverage industry using Australia/New Zealand 4360 Standard

S Kristina and B M Wijaya.....177

Comparison between motorcyclist' violation behavior and accidents in urban and rural area in Indonesia: A comparative study

N Rahmawati and A Widyanti.....188

Competition preparation guideline in undergraduate program of information system school of Industrial Engineering Telkom University based on knowledge conversion

F R Darmawan, R P Soesanto, A Kurniawati and M T Kurniawan.....195

The analysis of composite properties reinforced with particles from palm oil industry waste produced by casting methods

Tugiman, F Ariani, F Taher, M S Hasibuan and Suprianto.....202

Promotion bureau warehouse system design. Case study in University of AA

N Parwati and M Qibtiyah.....210

Training needs analysis for MSMEs: how to improve training effectiveness

Y Rohayati and S Wulandari.....218

Design of customer knowledge management system for Aglaonema Nursery in South Tangerang, Indonesia

D Sugiarto, I Mardianto, TS Dewayana and M Khadafi.....226

An overview of knowledge management (KM) issues for implementation in consultant firms in Malaysian construction industry

Azlan Othman, Syuhaida Ismail and Khairulzan Yahya.....232

An overview of turbomachinery project in Malaysian oil and gas industry

Harris Abd. Rahman Sabri, Abd. Rahman Abdul Rahim, Wong Kuan Yew and Syuhaida Ismail.....240

Implementation of enterprise resource planning using Odoo module sales and CRM. Case study: PT Ecosains Hayati

A Terminanto, R Hidayat and A N Hidayanto.....248

Product design for cable waste peeler machine

B Cahyadi and Y Kurniawan.....256

Configurations and implementation of payroll system using open source erp: a case study of Koperasi PT Sri

A Terminanto, H A Swantoro and A N Hidayanto.....264

Application of scl - pbl method to increase quality learning of industrial statistics course in department of industrial engineering pancasila university

M Darmawan and N Y Hidayah.....270

Optimization benefits analysis in production process of fabrication components

R Prasetyani, A Y Rafsanjani and D Rimantho.....278

Risk assessment of underpass infrastructure project based on IS0 31000 and ISO 21500 using fishbone diagram and RFMEA (project risk failure mode and effects analysis) method

Bambang Purwanggono and Anastasia Margarette.....286

Linking human capital and enterprise sustainability in Indonesian medium-sized food manufacturing enterprises: the role of informal knowledge sharing practice

O Sunardi.....294

Reliability analysis of component of affination centrifugal 1 machine by using reliability engineering

N Sembiring, E Ginting and T Darnello.....302

Challenges in detecting drowsiness based on driver's behavior

V Triyanti and H Iridiastadi.....310

Risk assessment of manual material handling activities (case study: PT BRS Standard Industry)

Deviani and V. Triyanti.....318

Coloring your information: How designers use *Theory of Color* in creative ways to present infographic

C R Lucius and A Fuad.....325

The performance and emissions of diesel engines with biodiesel of sunan pecan seed and diesel oil blends

F. Ariani, T. B. Sitorus and E. Ginting.....331

Operation Research

Efficient distribution of toy products using ant colony optimization algorithm

S Hidayat and C A Nurpraja.....339

Implementation of fuzzy logic to determining selling price of products in a local corporate chain store

S P D Kristiana.....347

Optimization for routing vehicles of seafood product transportation

I A Soenandi, Y Juan and M Budi.....353

An urban transportation performance model with spatial structure transit

A. Rachmat.....361

Production System

Proposed algorithm to improve job shop production scheduling using ant colony optimization method

Eka KA Pakpahan, Sonna Kristina and Ari Setiawan.....365

Design and Simulation Plant Layout Using Systematic Layout Planning

D Suhardini, W Septiani and S Fauziah....373

Synchronization of production and sales target through pull inventory management policy

Roland Silitonga, Eka KA Pakpahan and Marrietta Anggraeni.....381

The recommendation of line-balancing improvement on MCM product line 1 using genetics algorithm and moodie young at XYZ Company, Co.

I K Sriwana, I A Marie and D Mangala.....387

The model for estimation production cost of embroidery handicraft

Nofierni, IK Sriwana and Y Septriani.....395

Quality Engineering & Management

Enhancing the management of the noise level using six sigma method: a case study on the machining industry

D Rimantho and M W Hanantya.....402

Determining a combination of factors on rubber end manufacturing using taguchi method at PT. Agronesia Bandung

Wahyukaton and Siti Qodriyah.....411

Design on inspection system automation of curtain woven fabrics by image processing and the taguchi approach method at PT. Buana Intan Gemilang

M. Mirsyah and T. Mulyana.....417

Weighting analysis of pellet quality attributes using Multi Response Signal to Noise (MRSN) method

A Parkhan, I D Widodo and F N Amin.....427

Service quality that improves customer satisfaction in a university: a case study in Institut Teknologi Indonesia

L Theresia and R Bangun.....435

Supply Chain Management

Rice distribution planning for "the poor people" in Bandung, West Java, Indonesia.

Sutarman and Endang Hidayat.....442

Risk mapping and mitigation design of small and medium enterprises clothing products using supply chain risk management

Muhammad Nurman Helmi and M N Masri.....450

Stakeholder engagement in quattro helix model for mobile phone reverse logistics in Indonesia: a conceptual framework

H Maheswari, G Yudoko and A Adhiutama.....459

Supplier selection in supply chain management using analytical network process for Indonesian cement industry

A H Ismail and R Z Z Mahardika.....467

Identifying research advancements in supply chain risk management for Agri-food Industries: Literature review

W Septiani and P Astuti.....475

Land transportation model for supply chain manufacturing industries

Fajar Kurniawan.....483

Entrepreneurship / Technopreneurship

Business model in marketplace industry using business model canvas approach: An e-commerce case study

Yana Erlyana and Henny Hartono.....492

Discrete-event system simulation on small and medium enterprises productivity improvement

J Sulistio and N A Hidayah.....500

Control excess stock and calculating damaged products as the effort to increase revenue (case study of SME FBS)

N Nurhasanah, D A Mardhika, W Tanjung, A M Gayatri, Q A Suri, Jingga, R Safitri and A Supriyanto.....506

Cheapest insertion heuristics algorithm to optimize WIP product distributions in FBS Fashion Industry

WN Tanjung, N Nurhasanah, QA Suri, Jingga, B Aribowo, DA Mardhika, AM Gayatri, R Safitri and A Supriyanto.....514

Productivity analysis to overcome the limited availability of production time in SME FBS

N Nurhasanah, Jingga, B. Aribowo, AM Gayatri, DA Mardhika, WN Tanjung, QA Suri, R Safitri and A Supriyanto.....524

Analysis of information quality attribute for SME towards adoption of research result

E Febriani, W S Dewobroto and R D Anggraini.....532

Cost of unreliability method to estimate loss of revenue based on unreliability data: Case study of Printing Company

Judi alhilman.....539

Implementation of virtual corporation: the challenge of future business in Indonesia

Dadan Umar Daihani.....545

Feasibility model study for Blumbangreksa product model based on lean startup method

A K Pakpahan, W S Dewobroto and R Y Pratama.....554

Feasibility study analysis for multi-function dual energy oven (case study: tapioca crackers small medium enterprise)

N W Soraya, R M El Hadi, E Chumaidiyah and W Tripiawan.....563