

**LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : JURNAL ILMIAH  
(BUKTI ARTIKEL C-8)**

Judul Jurnal Ilmiah (Artikel)	:	Time – Dependent Learning Effect and Deterioration on Single Machine's Scheduling Penulis : Dian Ayu Nurul Ihsani, <b>Sunarsih</b> , Robertus Heri		
Jumlah Penulis	:	3 orang		
Status Pengusul :	:	<del>Penulis pertama</del> /penulis kedua/ <del>penulis korespondensi</del>		
Identitas Jurnal Ilmiah	:	a.	Nama Jurnal	: Global Journal of Researches in Engineering : Industrial Engineering.. Penerbit :
	:	b.	Nomor ISSN	: Online ISSN: 2249-4596 & Print ISSN: 0975-5861
	:	c.	Volume, nomor, bulan tahun	: Volume 14 Issue 4, 2014, pp : 25-29.
	:	d.	Penerbit	: Publisher: Global Journals Inc, USA
	:	e.	DOI artikel (jika ada)	: -
	:	f.	Alamat web jurnal	:
URL JURNAL : <a href="https://engineeringresearch.org/index.php/GJRE/article/view/1226">https://engineeringresearch.org/index.php/GJRE/article/view/1226</a>				
URL ARTIKEL : <a href="https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf">https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf</a>				
	:	g.	<b>Indexed by:</b> EBSCO, Creative Cottions, Google Scholar, Journal Seek, DAJI, doctes, USROS, ESJI, Citefactor, DAJI, Scribd, GIF.	

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah Internasional

(beri ✓ pada kategori yang tepat)

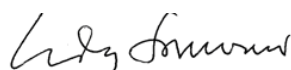
Jurnal Ilmiah Nasional Terakreditasi

Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	1,75	2	1,87
b. Ruang lingkup dan kedalaman pembahasan (30%)	5,5	6	5,75
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	5,75	6	5,88
d. Kelengkapan unsur dan kualitas penerbit (30%)	5,8	6	5,9
<b>Total = (100%)</b>	18,8	20	19,4

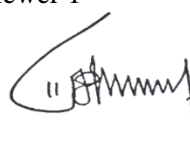
Reviewer 2



Prof. Dr. Edy Soewono  
NIP. 195206261980031003  
Unit kerja : Departemen Matematika FMIPA ITB

Semarang, 24-9- 2018

Reviewer 1



Prof. Dr. Widowati, MSi  
NIP. 196902141994032002  
Unit kerja : Departemen Matematika, FSM UNDIP

**LEMBAR**  
**HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW**  
**KARYA ILMIAH : JURNAL ILMIAH**  
**(BUKTI ARTIKEL C-8)**

Judul Jurnal Ilmiah (Artikel)	:	Time – Dependent Learning Effect and Deterioration on Single Machine's Scheduling Penulis : Dian Ayu Nurul Ihsani, <b>Sunarsih</b> , Robertus Heri		
Jumlah Penulis	:	3 orang		
Status Pengusul :	:	<del>Penulis pertama</del> /penulis kedua/ <del>penulis korespondensi</del>		
Identitas Jurnal Ilmiah	:	a.	Nama Jurnal	: Global Journal of Researches in Engineering : Industrial Engineering.. Penerbit :
	:	b.	Nomor ISSN	: Online ISSN: 2249-4596 & Print ISSN: 0975-5861
	:	c.	Volume,nomor, bulan tahun	: Volume 14 Issue 4, 2014, pp : 25-29.
	:	d.	Penerbit	: Publisher: Global Journals Inc, USA
	:	e.	DOI artikel (jika ada)	: -
	:	f.	Alamat web jurnal	:
URL JURNAL : <a href="https://engineeringresearch.org/index.php/GJRE/article/view/1226">https://engineeringresearch.org/index.php/GJRE/article/view/1226</a>				
URL ARTIKEL : <a href="https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf">https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf</a>				
	:	g.	<b>Indexed by:</b> EBSCO, Creative Cottions, Google Scholar, Journal Seek, DAJI, doctes, USROS, ESJI, Citefactor, DAIJ, Scribd, GIF.	

Kategori Publikasi Jurnal Ilmiah :  Jurnal Ilmiah Internasional  
(beri ✓ pada kategori yang tepat)  Jurnal Ilmiah Nasional Terakreditasi  
 Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional Terakreditasi <input type="checkbox"/>	Nasional Tidak Terakreditasi <input type="checkbox"/>	
a. Kelengkapan unsur isi jurnal (10%)	2,00			1,75
b. Ruang lingkup dan kedalaman pembahasan (30%)	6,00			5,5
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	6,00			5,75
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	6,00			5,8
<b>Total = (100%)</b>	20,00			18,8
<b>Nilai Pengusul = 60% * ..... =</b>				

**Catatan Penilaian artikel oleh Reviewer :**

1. **Kesesuaian dan kelengkapan unsur isi jurnal:**

Unsur isi jurnal baik.

2. **Ruang lingkup dan kedalaman pembahasan:**

Hasil dan diskusi tentang actual processing time model baik.

3. **Kecukupan dan kemutakhiran data/informasi dan metodologi :**

Data dan informasi cukup mutakhir,

4. **Kelengkapan unsur dan kualitas terbitan:**

Kualitas penerbit baik. Terdapat 5 referensi kedaluwarsa (lebih dari 10 tahun) dari 12 referensi yang digunakan.

Semarang, 18-8- 2018

Reviewer 1



Prof. Dr. Widowati, MSi

NIP. 196902141994032002

Unit kerja : Dept. Matematika FSM Undip

**LEMBAR  
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW  
KARYA ILMIAH : JURNAL ILMIAH  
(BUKTI ARTIKEL C-8)**

Judul Jurnal Ilmiah (Artikel)	:	Time – Dependent Learning Effect and Deterioration on Single Machine's Scheduling Penulis : Dian Ayu Nurul Ihsani, <b>Sunarsih</b> , Robertus Heri		
Jumlah Penulis	:	3 orang		
Status Pengusul :	:	<del>Penulis pertama</del> /penulis kedua/ <del>penulis korespondensi</del>		
Identitas Jurnal Ilmiah	:	a.	Nama Jurnal	: Global Journal of Researches in Engineering : Industrial Engineering.. Penerbit :
	:	b.	Nomor ISSN	: Online ISSN: 2249-4596 & Print ISSN: 0975-5861
	:	c.	Volume, nomor, bulan tahun	: Volume 14 Issue 4, 2014, pp : 25-29.
	:	d.	Penerbit	: Publisher: Global Journals Inc, USA
	:	e.	DOI artikel (jika ada)	: -
	:	f.	Alamat web jurnal	:
URL JURNAL : <a href="https://engineeringresearch.org/index.php/GJRE/article/view/1226">https://engineeringresearch.org/index.php/GJRE/article/view/1226</a>				
URL ARTIKEL : <a href="https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf">https://eprints2.undip.ac.id/1252/1/Artikel%20C8.pdf</a>				
	:	g.	<b>Indexed by:</b> EBSCO, Creative Cottions, Google Scholar, Journal Seek, DAJI, doctes, USROS, ESJI, Citefactor, DAIJ, Scribd, GIF.	

Kategori Publikasi Jurnal Ilmiah :  Jurnal Ilmiah Internasional  
 (beri ✓ pada kategori yang tepat)  Jurnal Ilmiah Nasional Terakreditasi  
 Jurnal Ilmiah Nasional Tidak Terakreditasi

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional Terakreditasi <input type="checkbox"/>	Nasional Tidak Terakreditasi <input type="checkbox"/>	
a) Kelengkapan unsur isi jurnal (10%)	2,00			2
b) Ruang lingkup dan kedalaman pembahasan (30%)	6,00			6
c) Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	6,00			6
d) Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	6,00			6
<b>Total = (100%)</b>	20,00			20
<b>Nilai Pengusul = 60% * ..... =</b>				

**Catatan Penilaian artikel oleh Reviewer :**

**1. Kesesuaian dan kelengkapan unsur isi jurnal:**

Materi kajian sesuai dengan judul artikel. Referensi cukup banyak, dengan beberapa yang up to date.

**2. Ruang lingkup dan kedalaman pembahasan:**

Kajian meliputi aplikasi matematika pada sistem manufacturing dengan batasan single machine dengan EOQ.

Kajian dilakukan dengan cukup detail.

**3. Kecukupan dan kemutakhiran data/informasi dan metodologi :**

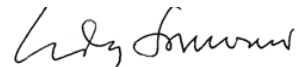
Substansi memuat kebaruan yang cukup untuk standart publikasi international.

**4. Kelengkapan unsur dan kualitas terbitan:**

Artikel terbit di journal international yang sudah terbit sampai dengan volume 14.

Semarang, 24/9/ 2018

Reviewer 2



Prof. Dr. Edy Soewono  
NIP. 195206261980031003

Unit kerja : Dept. Matematika FMIPA ITB



## Editorial Board

### **Dr. Ren-Jye Dzeng**

Professor Civil Engineering, National Chiao-Tung University, Taiwan Dean of General Affairs, Ph.D., Civil & Environmental Engineering, University of Michigan USA

### **Dr. Ephraim Suhir**

Ph.D., Dept. of Mechanics and Mathematics, Moscow University Moscow, Russia Bell Laboratories Physical Sciences and Engineering Research Division USA

### **Dr. Pangil Choi**

Ph.D. Department of Civil, Environmental, and Construction Engineering, Texas Tech University, US

### **Dr. Iman Hajirasouliha**

Ph.D. in Structural Engineering, Associate Professor, Department of Civil and Structural Engineering, University of Sheffield, UK

### **Dr. Wenfang Xie**

Ph.D., Department of Electrical Engineering, Hong Kong Polytechnic University, Department of Automatic Control, Beijing University of Aeronautics and Astronautics China

### **Dr. Joaquim Carneiro**

Ph.D. in Mechanical Engineering, Faculty of Engineering, University of Porto(FEUP), University of Minho, Department of Physics Portugal

### **Dr. Hai-Wen Li**

Ph.D., Materials Engineering, Kyushu University, Fukuoka, Guest Professor at Aarhus University, Japan

### **Dr. Wei-Hsin Chen**

Ph.D., National Cheng Kung University, Department of Aeronautics, and Astronautics, Taiwan

**Dr. Saeed Chehreh Chelgani**

Ph.D. in Mineral Processing University of Western Ontario, Adjunct professor, Mining engineering and Mineral processing, University of Michigan

**Belen Riveiro**

Ph.D., School of Industrial Engineering, University of Vigo Spain

**Dr. Bin Chen**

B.Sc., M.Sc., Ph.D., Xi'an Jiaotong University, China. State Key Laboratory of Multiphase Flow in Power Engineering Xi'an Jiaotong University, China

**Dr. Francesco Tornabene**

Ph.D. in Structural Mechanics, University of Bologna Professor Department of Civil, Chemical, Environmental and Materials Engineering University of Bologna, Italy

**Dr. Togay Ozbakkaloglu**

B.Sc. in Civil Engineering, Ph.D. in Structural Engineering, University of Ottawa, Canada Senior Lecturer University of Adelaide, Australia

**Dr. Paolo Veronesi**

Ph.D., Materials Engineering, Institute of Electronics, Italy President of the master Degree in Materials Engineering Dept. of Engineering, Italy

**Dr. Maria Daniela**

Ph.D. in Aerospace Science and Technologies Second University of Naples, Research Fellow University of Naples "Federico II", Italy

**Dr. Charles-Darwin Annan**

Ph.D., Professor Civil and Water Engineering University Laval, Canada

**Dr. Stefano Mariani**

Associate Professor, Structural Mechanics, Department of Civil and Environmental Engineering, Ph.D., in Structural Engineering Polytechnic University of Milan Italy

**Dr. Shaoping Xiao**

BS, MS Ph.D. Mechanical Engineering, Northwestern University The University of Iowa, Department of Mechanical and Industrial Engineering Center for Computer-Aided Design

**Dr. Vladimir Gurao**

Associate Professor, Ph.D. in Mechanical /Aerospace Engineering, University of Miami, Engineering Technology

**Dr. Adel Al Jumaily**



Ph.D. Electrical Engineering (AI), Faculty of Engineering and IT, University of Technology, Sydney

**Dr. A. Stegou-Sagia**

Ph.D. Mechanical Engineering, Environmental Engineering School of Mechanical Engineering, National Technical University of Athens

**Dr. Jalal Kafashan**

Mechanical Engineering Division of Mechatronics KU Leuven, BELGIUM

**Dr. Omid Gohardani**

Ph.D. Senior Aerospace/Mechanical/ Aeronautical, Engineering professional M.Sc. Mechanical Engineering, M.Sc. Aeronautical Engineering B.Sc. Vehicle Engineering Orange County, California, US

**Dr. Maciej Gucma**

Assistant Professor, Maritime Univeristy of Szczecin Szczecin, Poland Ph.D.. Eng. Master Mariner

**Dr. Vivek Dubey(HON.)**

MS (Industrial Engineering), MS (Mechanical Engineering), University of Wisconsin FICCT Editor-in-Chief, US

**Dr. Ye Tian**

Ph.D. Electrical Engineering The Pennsylvania State University 121 Electrical, Engineering East University Park, PA 16802, US

**Dr. Alex W. Dawotola**

Hydraulic Engineering Section, Delft University of Technology, Stevinweg, Delft, Netherlands

**Dr. M. Meguellati**

Department of Electronics, University of Batna, Batna 05000, Algeria

**Dr. Shun-Chung Lee**

Department of Resources Engineering, National Cheng Kung University, Taiwan

**Dr. Philip T Moore**

Ph.D., Graduate Master Supervisor School of Information Science and engineering Lanzhou University China

**Dr. Gordana Colovic**

B.Sc Textile Technology, M.Sc. Technical Science Ph.D. in Industrial management. The College of Textile ? Design, Technology and Management, Belgrade, Serbia

**Dr. Xianbo Zhao**

Ph.D. Department of Building, National University of Singapore, Singapore, Senior Lecturer, Central Queensland University, Australia

**Dr. Eric M. Lui**

Ph.D., Structural Engineering, Department of Civil & Environmental Engineering, Syracuse University USA

**Dr. Zhou Yufeng**

Ph.D. Mechanical Engineering & Materials Science, Duke University, US Assistant Professor College of Engineering, Nanyang Technological University, Singapore

**Dr. Pallav Purohit**

Ph.D. Energy Policy and Planning, Indian Institute of Technology (IIT), Delhi  
Research Scientist, International Institute for Applied Systems Analysis (IIASA), Austria

**Dr. Zi Chen**

Ph.D. Department of Mechanical & Aerospace Engineering, Princeton University, US Assistant Professor, Thayer School of Engineering, Dartmouth College, Hanover, US

**Dr. Giacomo Risitano**

Ph.D., Industrial Engineering at University of Perugia (Italy) "Automotive Design" at Engineering Department of Messina University (Messina) Italy.

**Dr. Maurizio Palesi**

Ph.D. in Computer Engineering, University of Catania, Faculty of Engineering and Architecture Italy

**Dr. Cesar M. A. Vasques**

Ph.D., Mechanical Engineering, Department of Mechanical Engineering, School of Engineering, Polytechnic of Porto Porto, Portugal

**Dr. Stefano Invernizzi**

Ph.D. in Structural Engineering Technical University of Turin, Department of Structural, Geotechnical and Building Engineering, Italy

**Dr. T.S. Jang**

Ph.D. Naval Architecture and Ocean Engineering, Seoul National University, Korea  
Director, Arctic Engineering Research Center, The Korea Ship and Offshore Research Institute, Pusan National University, South Korea

**Dr. Jun Wang**

Ph.D. in Architecture, University of Hong Kong, China Urban Studies City University of Hong Kong, China

**Dr. Salvatore Brischetto**

Ph.D. in Aerospace Engineering, Polytechnic University of Turin and in Mechanics, Paris West University Nanterre La Defense Department of Mechanical and Aerospace Engineering, Polytechnic University of Turin, Italy

**Dr. Wesam S. Alaloul**

B.Sc., M.Sc., Ph.D. in Civil and Environmental Engineering, University Technology Petronas, Malaysia

**Dr. Sofoklis S. Makridis**

B.Sc(Hons), M.Eng, Ph.D. Professor Department of Mechanical Engineering University of Western Macedonia, Greece

**Dr. Ananda Kumar Palaniappan**

B.Sc., MBA, MED, Ph.D. in Civil and Environmental Engineering, Ph.D. University of Malaya, Malaysia, University of Malaya, Malaysia

**Dr. Zhen Yuan**

B.E., Ph.D. in Mechanical Engineering University of Sciences and Technology of China, China Professor, Faculty of Health Sciences, University of Macau, China

**Dr. Hugo Silva**

Associate Professor, University of Minho, Department of Civil Engineering, Ph.D., Civil Engineering, University of Minho Portugal

**Dr. Jui-Sheng Chou**

Ph.D. University of Texas at Austin, U.S.A. Department of Civil and Construction Engineering National Taiwan University of Science and Technology (Taiwan Tech)

**Dr. Fausto Gallucci**

Associate Professor, Chemical Process Intensification (SPI), Faculty of Chemical Engineering and Chemistry Assistant Editor, International J. Hydrogen Energy, Netherlands

**Prof. (LU) Prof. (UoS) Dr. Miklas Scholz**

Cand Ing, BEng (equiv), PgC, MSc, Ph.D., CWEM, CEnv, CSci, CEng, FHEA, FIEMA, FCIWEM, FICE, Fellow of IWA, VINNOVA Fellow, Marie Curie Senior, Fellow, Chair in Civil Engineering (UoS) Wetland systems, sustainable drainage, and water quality

**Dr. Houfa Shen**

Ph.D. Manufacturing Engineering, Mechanical Engineering, Structural Engineering, Department of Mechanical Engineering, Tsinghua University, China

**Dr. Kitipong Jaojaruek**

B. Eng, M. Eng, D. Eng (Energy Technology, Asian Institute of Technology). Kasetsart University Kamphaeng Saen (KPS) Campus Energy Research Laboratory of Mechanical Engineering

**Dr. Haijian Shi**

Ph.D. Civil Engineering Structural Engineering Oakland, CA, United States

**Dr. Burcin Becerik-Gerber**

University of Southern California Ph.D. in Civil Engineering Ddes, from Harvard University M.S. from University of California, Berkeley M.S. from Istanbul, Technical University

**Dr. Balasubramani R**

Ph.D., (IT) in Faculty of Engg. & Tech. Professor & Head, Dept. of ISE at NMAM Institute of Technology

**Dr. Minghua He**

Department of Civil Engineering Tsinghua University Beijing, 100084, China

**Dr. Diego Gonzalez-Aguilera**

Ph.D. Dep. Cartographic and Land Engineering, University of Salamanca, ?vila, Spain

**Dr. Fentahun Moges Kasie**

Department of mechanical & Industrial Engineering, Institute, of technology Hawassa University Hawassa, Ethiopia

**Dr. Ciprian L?PU?AN**

Ph. D in Mechanical Engineering Technical University of Cluj-Napoca Cluj-Napoca (Romania)

**Dr. Chao Wang**

Ph.D. in Computational Mechanics Rosharon, TX, US

**Hiroshi Sekimoto**

Professor Emeritus Tokyo Institute of Technology Japan Ph.D., University of California Berkeley

**Dr. Steffen Lehmann**

Faculty of Creative and Cultural Industries Ph.D., AA Dip University of Portsmouth UK

**Dr. Yudong Zhang**

B.S., M.S., Ph.D. Signal and Information Processing, Southeast University Professor School of Information Science and Technology at Nanjing Normal University, China

**Dr. Philip G. Moscoso**

Technology and Operations Management IESE Business School, University of Navarra Ph.D. in Industrial Engineering and Management, ETH Zurich M.Sc. in Chemical Engineering, ETH Zurich Link: Philip G. Moscoso personal webpage

[View More](#)

## Reviewers in Engineering

**Farzad Ebrahimi**, Ph.D.

**Syed Jahangir Badashah**, B.E., M.E (Applied Electronics), MISTE, MIETE, Ph.D.

**ALIREZA RAFIEERAD**,

**Minghua He**, Ph.D.

**Ayesha Tasneem**, BS-Software Engineering

**Hani Vahedi**, Ph.D.

**Maciej Gucma**, PhD. Eng. Master Mariner

**Prof. (Dr.) Bharat Raj Singh**, M.Tech, Ph.D. Development & Analysis of Air Engine

**Prasenjit Chatterjee**, Ph.D. in Production Engineering M.Tech(Production Management)

**Md Multan Biswas**, M.Sc. Electrical and Electronic Engineering

**Dr. Rajiv Mahajan**, Ph.D, M-Tech

**Md. Mottaleb Hossain**, B.Sc. Electrical & Electronic Engineering

**Ehsan Javadi Shokroo**, Ph.D.

**Prof. Dr. Y.P.Singh**, M.TEch,PHd

**Tao Yang**, Ph.D, Ohio State University

**Dr.Sukumar Senthilkumar**, B.Sc, M.Sc. Ph.D. Mathematics and Computer Applications

**D. Arumuga Perumal**, Ph.D

**Chutisant Kerdvibulvech**, Ph.D.

**Hani Vahedi**, Ph.D. Student in Power Electrical Systems

**Balu**, M.Sc., M.Phil.,(Ph.D).

**Dr. M V Raghavendra**, Ph.D.

**Bensafi Abd-El-Hamid**, Ph.D., Polymer Thermodynamics and Polymer Physics

**Md. Farhad Ismail**, B.Sc. Mechanical Engineering

**Dr C Saravanan**, Ph.D.

Home (<https://engineeringresearch.org/index.php/GJRE/index>)  
/ Archives (<https://engineeringresearch.org/index.php/GJRE/issue/archive>)  
/ Vol 14, No 4-G (2014): The Global Journal of Researches in Engineering

## Vol 14, No 4-G (2014): The Global Journal of Researches in Engineering

### Articles

**A Measuring of a Mass Flow with Geometrically Deformed Orifice Plates**  
(<https://engineeringresearch.org/index.php/GJRE/article/view/1224>)

Vol 14 Issue 4

Kis R., Malcho, M., Janovcova M.

 [PDF \(https://engineeringresearch.org/index.php/GJRE/article/view/1224/1156\)](https://engineeringresearch.org/index.php/GJRE/article/view/1224/1156)

**Optimization of Supply Chain Network Perspective Environmental Impact Based on Fuzzy Mathematical Programming**  
(<https://engineeringresearch.org/index.php/GJRE/article/view/1225>)

Vol 14 Issue 4

Subrata Talapatra, Md. Shakil

 [PDF \(https://engineeringresearch.org/index.php/GJRE/article/view/1225/1157\)](https://engineeringresearch.org/index.php/GJRE/article/view/1225/1157)

**Time-Dependent Learning Effect and Deterioration on Single Machine<sup>TM</sup>s Scheduling**  
(<https://engineeringresearch.org/index.php/GJRE/article/view/1226>)

Vol 14 Issue 4

Dian Ayu Nurul Ihsani, Sunarsih, Robertus Heri

 [PDF \(https://engineeringresearch.org/index.php/GJRE/article/view/1226/1158\)](https://engineeringresearch.org/index.php/GJRE/article/view/1226/1158)

**Productivity Improvement by Lean Manufacturing an Automobile Industry with the Help of Method Study**  
(<https://engineeringresearch.org/index.php/GJRE/article/view/1227>)

Vol 14 Issue 4

Jitendra Mandloi, Mr. Abhishek Yadav



## A Measuring of a Mass Flow with Geometrically Deformed Orifice Plates

By Kiš R., Malcho & M., Janovcová M.

*University of Zilina, Slovakia*

*Abstract-* This work aims to present an impact of an orifice plate's deformation to an accuracy of measured mass flow of an air. Measurements were analyzed at an experimental device, which was a miniature of measuring track for measuring mass flows of natural gas in high-pressure natural gas pipelines. Measurements were repeated at various mass flows and different values of deformations of orifice plates. There was prediction, that changing orifice plate's geometry could cause differences in measured pressure values, which could affect required mass flow value. This paper tries to focus on behavior of the air flowing through the pipeline's measuring track with installed differently deformed orifice plates. It compares values measured by undeformed orifice plate and differently deformed orifice plates.

*GJRE-G Classification : FOR Code: 290502*



*Strictly as per the compliance and regulations of:*





GLOBAL JOURNAL OF RESEARCHES IN ENGINEERING: G  
INDUSTRIAL ENGINEERING  
Volume 14 Issue 4 Version 1.0 Year 2014  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals Inc. (USA)  
Online ISSN: 2249-4596 & Print ISSN: 0975-5861

# Optimization of Supply Chain Network Perspective Environmental Impact based on Fuzzy Mathematical Programming

By Subrata Talapatra & Md. Shakil

*Khulna University of Engineering and Technology (KUET), Bangladesh*

**Abstract-** Supply chain management (SCM) is concerned with a complex business relations network that contains interrelationships between various entities, such as suppliers, manufacturers, distribution centers and customers. SCM integrates these entities and manages their interrelationships through the use of information technology to meet customer expectation effectively along the entire value chain. Thus, one of the vital issues in supply chain management is the design of the value chain network. In this paper, a multi objective fuzzy mathematical programming model is developed to optimize the supply chain networking under inherent uncertainty of input data. The proposed model is able to optimize the environmental impacts beside the traditional cost minimization objective to make a fair balance between them. The model determines the fuzzy capacities of the facilities and the design of the network configuration with a minimum total cost. A real case is used to demonstrate the significance and applicability of the developed fuzzy optimization model as well as the usefulness of the proposed solution approach. The developed model is solved by a professional software package (LINDO), and the computational results are discussed.

**Keywords:** optimization, fuzzy, supply chain network design, environmental impact and model formulation.

**GJRE-G Classification :** FOR Code: 290502p



*Strictly as per the compliance and regulations of:*



© 2014. Subrata Talapatra & Md. Shakil. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License (<http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.