

All



ADVANCED SEARCH

Conferences > 2021 International Conference

Classification of Airline Tweet Using Naïve-Bayes Classifier for Sentiment Analysis

Publisher: IEEE

Cite This

PDF

Nand Kishore Sharma | Surendra Rahamatkar | Sachin Sharma | All Authors

1 174

Paper Full

Citation Text Views



Need Full-Text
 access to IEEE Xplore for your organization?
 REQUEST A FREE TRIAL >

More Like This

Naive Bayes Algorithm for Sentiment Analysis on Twitter

2021 International Conference on System, Computation, Automation and Networking (ICSCAN)

Published: 2021

M. S. ...
Principal

Chandrasekhar Group of Institutions
Accept & INDORE

Abstract

Abstract:

Wide range of customers like family persons, business man, sportsman and youth are traveling via Airline. Hence feedback of persons matters a lot if they are involved. Direct feedbacks of customer may be positive or negative but analyzing their Tweets is important for the betterment i.e. how the Tweets is? Analysis of individual tweet is

Document

Sections

Introduction

OPERATING SYSTEM CONCEPTS



Process
Management



I/O
Management



User &
Security
Control



Device
Management



OS



Printing
Control

Handwritten signature and text:
Anish Kumar Choudhary
2020

Prof. ANISH KUMAR CHOUDHARY

Publisher

LANGA PUBLISHERS & DISTRIBUTORS

40, Main Street, Second Floor, Gurgaon, Haryana

Phone: 01294-261111, 01294-261112

Website: www.langapublishers.com

Email: info@langapublishers.com

© All rights reserved

ISBN: 978-81-942811-6-8

Edition: 2020

7 120

Typesetting

Langapublishers.com

40, Main Street, Gurgaon

Haryana, India

Printed by
Langapublishers.com
Gurgaon



मेडी कैप्स विश्वविद्यालय, इंदौर
Medi-Caps University, Indore

Innovation for Sustainability in Engineering and Management

Prof. (Dr.) Sunil K. Somani
Dr. Mohammed Ali
Dr. Ravindra Pathak
Dr. Neelesh Sahu


Principal
Chairman of Group of Institutions
INDORE

Table of Contents

An Exposition of Circular Economy in Europe

Ritam Garg

Effects of Teff Husk on Concrete Properties

Mohammed Ihtesham Hussain

Investigation of Awareness Level of Industry 4.0 among Graduate University Students: A Case of Ethiopia

Amrutrao, Serajul Haque and Ravindra Pathak

Experimental Investigation of Waste Tyre Pyrolysis Process

Ashraf Mahmud Rayed, Shivom Moyade and Ravindra Pathak

Soft Computing and Regression Models for Compressive Strength of Blast Furnace Slag and Super Plasticizer Mixed Concrete

Naresh Nischol Harry and Yeetendra Kumar Bind

An Artificial eye to visually impaired people for selfie and safety

Swapnil Soner, Jyoti Kukade and Shreyas Pagare

Design & Analysis of Multi-storey RCC Building with AAC Blocks & Its Comparison with Conventional Building

Ajay Sinha, Deepak Jain and R.K. Agrawal

Efficacy of Biomass as Sustainable Energy Source: A Review

Surobhi Pal and Nisha Kumari

A Green Future: Building and Managing Future Cities as Sustainable Cities

Neelam Dubey


Principal
Charneli Devi Group of Institutions
INDORE

An Artificial eye to visually impaired people for selfie and safety

¹Swapnil Soner, ²Jyoti Kukade, ³Shreyas Pagare

¹Department of Information Technology, Medi-Caps University,
Indore

²Department of Information Technology, Medi-Caps University,
Indore

³Department of Computer Science & Engineering, Chameli Devi
Group of Institutions, Indore
Swapnil.soner@medicaps.ac.in

Abstract

Machine learning is a subset of artificial intelligence that deals with programming which is based on automatically learning and improving with experience. Learning means recognizing and understanding the input data and making continuous wise decisions based on the supplied data. Using a machine-learning algorithm on this work is to put in place new solutions for blind people as they can be assisted to set their position in front of the camera accordingly, so that the accuracy, speedup, digitalization of the system will be enhanced. As per report 285 million people are estimated to be visually impaired worldwide and more than 40 million people in the world are completely blind. So, Inventing machine learning-based algorithms through which a blind user is given a highly engaging on the spot directional assistance for perfect picture capture, alignment, and placement in the desired space in a live environment in a seamless manner. Proposed Model of this problem uses classification problems. Different crops of a perfect selfie are taken, and according to the region cropped, the new image is labeled. This classifier is a Convolution neural network, which takes user input, and infers the class it belongs to. With the help of this proposed system we will provide security against misbehave, teasing etc.

Keywords: CNN, Blind, Classifier, Human facial expressions

ABOUT THE EDITOR



Prof. (Dr.) Sunil K. Sohani is Professor, professor of Mechanical Engineering from India Gandhi Government Engineering College, Nagpur, Post Graduate in Doctor Engineering from the College of Engineering, Pune followed by Ph.D. from the Department of Mechanical Engineering from Datta Meghe University. He is Founder Vice-Chancellor of Medi-Caps University with a demonstrated growth record of working in higher education. He is having extensive experience of 50 years in teaching and training.

As a research guide, he has guided 5 Ph.D. and 100+ M.Tech. more than 400 undergraduates and postgraduate projects. He has more than 70 publications in books, journals and published the first paper in 1982 in IASME. He has more books in his credit. Being the member of various professional bodies like: IFI (India), ANM, ISTE, NDA, ASCE, ICAE and his contributions is well acknowledged in the world of engineering.



Dr. Mohammed Ali is working as the Mechanical, Automobile and Tool Technology & Safety Engineering department, Medi-Caps University since 2018. He has profound expertise in the field of Machine Design and completed his research in Design Optimization and Tribological Aspects of Hydrodynamic Journal Bearing. He has graduated from S.A.T.I. in Mechanical Engineering, post graduated from I.E.T. D.A.V.V. and obtained Ph.D. from Sardar Gran Vihar University, Japur. He has a long academic and administrative experience of 20 years and published more than 25+ papers in the journals of national and international nature.



Dr. Ravindra Pathak is currently working as an Associate Professor in the Department of Mechanical Engineering at Medi-Caps University, Indore. He earned his doctorate in Mechanical Engineering from Sardar Gran Vihar University, Japur. He owns about 10 global patents and published 45+ articles in the peer-reviewed international journals and was twenty conferences, and has delivered 25+ lectures in the international and national conferences/forums. He is a Fellow of the Institution of Engineers (India), International Engineering and Technology Institute (Hongkong), Indian Nuclear Society and Member of assessment team of Quality Certification (London), World Bank Based (London) and South Asian Chamber of Commerce & Industry.



Dr. Nandish Kumar Sahu is currently working as Assistant Professor in Mechanical Engineering department at Medi-Caps University, Indore. He has done his Ph.D. in Mechanical Engineering from Vignanswara National Institute of Technology (VNIT) Nagpur in 2018. M. Tech in Mechanical Engineering from PDPM India Institute of Information Technology, Design and Manufacturing (IIT DM) Jabalpur in 2012 and B.E. in Mechanical Engineering from R.G.P.V. Bhopal in 2007. His Area of research are machining, Optimization, Non-structural Machining, Condition Monitoring, and Nanofluids. He has published 14 papers in SCI/Scopus/ISI of Science Journals.

Innovation for Sustainability in Engineering and Management

Innovation for Sustainability Engineering and Management



Meesha
Principal

Chancellor, Devi Group of Institutions
INDORE



Prof. (Dr.) Sunil K. Sohani

Desktop Publishing & Multimedia

For B.A., B.Com and B.Sc.1st Year Computer Application
And Other Professional Courses

Author
Shweta Shah
(B.E., Computer Science)
(M.E., Software Engineering)



GANGA PUBLISHERS & DISTRIBUTORS

Khajuri Bazar, Indore (M.P.)

Meeel
Principal
Chandeli Devi Group of Institutions
INDORE

Publisher**GANGA PUBLISHERS & DISTRIBUTORS**

43 Main Chowk Behind Dava Coaching Class

Near Khasraj Bazar INDORE - 462 002 (M.P.)

☎ 0731-2452228, Mobile : 98269-10666, 7887621811

E-mail : gangapublishersdistributors@gmail.com

C: Author

ISBN : 978-81-932681-6-2

Edition : 2018

₹ 220/-

Type Setting

SARMAI GRAPHICS

23, Iqbal Colony Square,

Ajay Paltan Main Road, Indore



Principal
Chand Devi College of Teachers
INDORE

Note : No part of this publication may be reproduced, stored in a retrieval or by any means electronic, mechanical, photocopying, scanning, web or otherwise without the written permission of publisher excepting those chapters appearing as brief quotations for the purpose of academic review, criticism or as input for further research; Ganga publishers & distributors has obtained all the information in this book from the sources believed to be reliable and true. However Ganga publishers & distributors or its Editors or Authors or Illustrators don't take any responsibility for the absolute accuracy of any information published, and the

PREFACE

Desktop publishing is the process of laying out and design with your desktop computer. With software programs such as P and Quark Xpress, you can assemble anything from a one-page to a full-length book. Understanding how the software works, is only the beginning, and often the easiest part of the whole process is designed for the novice page designer who wants to fundamentals of effective page layout. So whether you need a brochure, advertisement, or an entire newsletter read on! How also provides a useful study material for commerce graduates.

The main goal of this book is to learn the elements and principle graphic design and how to apply them to a design project and the four different type styles and how to make an informed decision typographic choices as well as to learn the elements and principle creating effective visual communications such as a stationery, poster and brochure.

The book is primarily meant as a textbook for those students University. The book is based on latest syllabus of university. It has been so compiled and arranges that book contain all the use material. The language of the book is simple and precise the main the author is to provide useful material in a handy book and the they can easily understand. The author is grateful to the publisher reference. The author expresses her profound gratitude **Ganga Publishers & Distributors** for publishes the book attractive matter.

I believe that the book in its present form will be useful students. Suggestions for improvement from the student and are most welcome and will be grateful acknowledged.

INTERNET

&

e-COMMERCE



Dr. Rupesh Shukla | Shweta Shah



Principles
Charit Des College, Indore
INDORE

Internet and E-Commerce

For B.A., B.Com and B.Sc, 2nd Year Computer Application
And Other Professional Courses

Authors

Dr. Rupesh Shukla

(M.C.M., M.Sc. (CS), Ph.D.)

Shri Cloth Market Kanya Vanijya

Mahavidhyalaya, Indore (M.P.)

(UGC-NAAC-'A+' Grade)

Shweta Shah

(B.E., Computer Science)

(M.E., Software Engineering)

Chameli Devi Group

of Institution Indore (M.P.)



Mallavi

Principal

Chameli Devi Group of Institutions
INDORE

GANGA PUBLISHERS & DISTRIBUTORS

Khajuri Bazar, Indore (M.P.)

Publisher

GANGA PUBLISHERS & DISTRIBUTORS

43 Manik Chowk Behind Dave Coaching Class

Near Khajuri Bazar INDORE - 462 002 (M.P.)

☎ 0731-2462228, Mobile : 70004-32007, 79876-21811

E-mail : gangapublishersdistributors@gmail.com

© : All rights reserved

ISBN : 978-81-937692-2-5

Edition : 2019

₹ 300/-

Type Setting

SANIYA GRAPHICS

29, Iqbal Colony Square,

Ahilya Paltan Main Road, Indore


Principal
Chandni Devi Group of Institutions
INDORE

Note : No part of this publication may be reproduced, stored in a retrieval or by any means electronic, mechanical, photocopying, scanning, web or otherwise without the written permission of publisher excepting those citations appearing as brief quotations for the purpose of academic review, criticism or as input for further research. Ganga publishers & distributors has obtained all the information in this book from the sources believed to be reliable and true. However Ganga publishers & distributors or its Editors or Authors or illustrators don't take any responsibility for the absolute accuracy of translation, any information published and the damages or loss suffered thereupon.
Any disputes subject to Indore (M.P.) Jurisdiction only.

IEEE International Conference on Information,
Communication, Instrumentation and Control

(ICICIC-2017)
August 17-19, 2017



Organized by

Department of Electronics Engineering & Electrical Engineering

Faculty of Engineering



Technically Sponsored By:



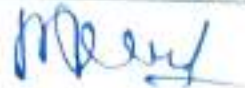
M. Devi
Principal
Chameli Devi Group of Institutions
INDORE

OBJECTIVE OF CONFERENCE

ICICIC will be held during August 17-19, 2017 in Indore, Madhya Pradesh. This IEEE International Conference will provide a platform for the researchers, academicians and industry professionals to discuss and update about the recent trends and challenges in the technological world. The conference theme converge different domains such as Information, Communication, Instrumentation and Control. This will help to invoke new ideas of research in interdisciplinary fields pertaining to Information, Communication, Instrumentation and Control. There will be keynote address by eminent personalities of Indian and foreign origin, in different domains of the conference theme. All the accepted and presented papers will be sent for publication in the archives of IEEEExplore (Conference Record #41237).


Principal
Chameli Devi Group of Institutions
INDORE

28	84	Flexible attribute enriched role based access control model
29	88	A modified approach of video watermarking using dwt-bp based lsb algorithm
30	92	Noise Removal for Unconstrained Iris Recognition
31	94	High Selectivity and Ultra-Wide Stopband Microstrip Lowpass Filter Using High-Low Impedance Resonators
32	96	Comparative Study of different types of Relay Selection Scheme for Cooperative Wireless Communication
33	98	Optimal Reactive Power Dispatch for Enhancement of Static Voltage Stability using Jaya Algorithm
34	99	Enhancement of Voltage Security by MW-Generation Rescheduling based on Sensitivities using Black Hole
35	100	Sound based Human Emotion Recognition using MFCC & Multiple SVM
36	101	Evaluation of MTCMOS Technique with Park mode On chain of 2 Input CMOS NAND Gate
37	103	Dynamic Phasor Model of WAMS enabled Transient Stability Controller
38	107	A Novel Proposed Deer algorithm
39	108	Split data green multihop cooperative communication
40	112	Optimum values of TMS and PS of Overcurrent Relays using Amalgam of GA-NLP Methods
41	113	Automated Medical Image Segmentation using RBF ANN
42	119	A Novel Interleaved Resonant Power Converter for Renewable Energy Generation Applications
43	121	Low Power, Area Efficient Dynamic Comparator with Reduced Activity Factor
44	122	Nonlinear PI with state feedback control for Activated Sludge Process
45	126	A Compact Printed Monopole Antenna with Symmetrical I and Rectangular Shaped Slots for WLAN/WiMAX Applications
46	130	DRLMS,DFELMS,LMS Adaptive Beam forming Algorithms for Smart Antenna System
47	131	Content delivery and management system
48	136	Enhancing E-governance using Data mining Tools and Techniques
49	138	Control System Design for Process With Recycle
50	140	Simulation of simplified SVM technique for three phase five-level cascaded H-bridge inverter
51	143	Designing Simulators For Various VLSI Designs Using The Proposed Artificial Neural Network Model TRIVENI
52	153	A Hybrid Approach for Intelligent Communication and Performance Analysis over DSRC VANET
53	155	Cluster statistics based normalization for online fault diagnosis of self-powered neutron detectors
54	163	Area-Efficient High-Speed Hybrid 1-bit Full Adder Circuit Using Modified XNOR Gate
55	164	Design of Circularly Polarized Microstrip Patch Antennas for Wireless Communication
56	166	Leader Based Adaptive Fault Diagnosis Algorithm for Distributed Systems
57	167	Feasibility study and Performance evaluation of a grid-connected Rooftop Solar PV system
58	170	Design of Microstrip Patch Antennas Using Method of Moment Based MATLAB



Principal

Chairman, De J Group of Institutions
INDORE

Noise Removal for Unconstrained Iris Recognition

Harish Prajapati¹, and Rajesh M. Bodade²

¹Chambeli Devi Group of Institutions, Indore-452020, India

prajapati.harish@gmail.com

²Military College of Telecommunication Engineering, Mhow-453441, India

rajeshbodade@gmail.com

Abstract:- VW iris images are highly noisy unconstrained iris images illuminated in VW light. This paper presents removing noise from the VW iris images. In respect of iris recognition noise may be due reflection of light, hairs and eyelids portion. Here, in terms VW images we have experimented UBIRIS.v2 VW images which are considered highly noisy in VW databases. After removing there three noisy artifacts from VW iris images results of iris recognition will be improved.

Keywords-Hindrance, VW, NIR, Unconstrained

1 Introduction

Iris recognition has advantage that image acquisition can be achieved without user contact. In previous, years focus was on constrained environment or in other words NIR iris recognition, where user has to be cooperative. And, NIR iris recognition is less use full for real world application of Iris may be for security purpose. Specialized cameras are needed for NIR illumination [7]. Modern world is moving towards digitalization, where security becomes an important issue. Security may be of person's documents, ATM password, Missiles, Government documents, systems, and examination papers, entry of person's college, hospital, school, house, office, buses railways, airplanes, Gardens, Malls, Restaurants, and Canteens, Distribution of Government subsidies like old age pension, Gas connections, Rice, grain, oil distribution etc. Biometric is one of the reliable sources of security of this modern world. The main requirement in using iris as biometric security is non cooperative environment application of iris or VW iris recognition. In another sense we can say, For making iris recognition more useful in public domain it should give good results in VW illumination, so that could be used in mobiles and in public squares for distant recognition. In the case of unconstrained environment iris image may be degraded due to off-axis imaging, image blurring, occlusion, lighting variations specular highlights and noise [1]. This makes unconstrained iris recognition more challenging. Unconstrained iris recognition extends iris recognition to real world application.

The Amount of melanin decides the iris color. Dominant form of melanin in human iris is Eumelanin due to which iris appears brown. Eumelanin is disadvantageous in terms of noise for visible illumination of iris images. Since, it is most fluorescent to visible light which adds noise due to specular reflections and Shadows. But, advantage of Eumelanin in visible light


Principal
Chambeli Devi Group of Institutions
INDORE

Smart Innovation, Systems and Technologies 79

Arun K. Somani
Sumit Srivastava
Ankit Mundra
Sanyog Rawat *Editors*



Proceedings of First International Conference on Smart System, Innovations and Computing

SSIC 2017, Jaipur, India


International

 Springer


Principal
Charwell Devi Group of Institutions
INDORE

Editors

Arun K. Somani
College of Engineering
Iowa State University
Ames, IA
USA

Ankit Mundra
Department of Information Technology
Manipal University Jaipur
Jaipur, Rajasthan
India

Sumit Srivastava
Department of Information Technology
Manipal University Jaipur
Jaipur, Rajasthan
India

Sanyog Rawat
Department of Electronics and
Communication Engineering
Manipal University Jaipur
Jaipur, Rajasthan
India

ISSN 2190-3018 ISSN 2190-3026 (electronic)
Smart Innovation, Systems and Technologies
ISBN 978-981-10-5827-1 ISBN 978-981-10-5828-8 (eBook)
<https://doi.org/10.1007/978-981-10-5828-8>

Library of Congress Control Number: 2017947486

© Springer Nature Singapore Pte Ltd. 2018

This book was advertised with a copyright holder in the name of the editor(s)/author(s) in error, whereas the publisher holds the copyright.

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer Nature Singapore Pte Ltd.
The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Task-Enabled Instruction Cache Partitioning Scheme for Embedded System	603
Bhargavi R. Upadhyay and T.S.B. Sudarshan	
Patient Tracking Using IoT and Big Data	613
A. Jameer Basha, M. Malathi, S. Balaganesh and R. Maheshwari	
An Enhanced Approach to Fuzzy C-means Clustering for Anomaly Detection	623
Ruby Sharma and Sandeep Chaurasia	
A Study of Memory Access Patterns as an Indicator of Performance in High-Level Synthesis	637
Meena Belwal and T.S.B. Sudarshan	
Image Segmentation Using Hybridized Firefly Algorithm and Intuitionistic Fuzzy C-Means	651
Sai Srujan Chinta, Abhay Jain and B.K. Tripathy	
A Review Spoof Face Recognition Using LBP Descriptor	661
Tanvi Dhawanpatil and Bela Joglekar	
Cube NoC Based on Hybrid Topology: A Thermal Aware Routing	669
R. Suraj and P. Chitra	
Real-Time VANET Applications Using Fog Computing	683
Jyoti Grover, Ashish Jain, Sunita Singhal and Anju Yadav	
Simplifying Spaghetti Processes to Find the Frequent Execution Paths	693
M.V. Manoj Kumar, Likewin Thomas and B. Annappa	
Analysis of NIR and VW Light Iris Images on the Bases of Different Statistical Parameters	703
Harish Prajapati and Rajesh M. Bodade	
Study and Analysis of Demonetization Move Taken by Indian Prime Minister Mr. Narendra Modi	721
Vijay Singh, Bhasker Pant and Devesh Pratap Singh	
Prediction of Gallstone Disease Progression Using Modified Cascade Neural Network	729
Likewin Thomas, M.V. Manoj Kumar, B. Annappa, S. Arun and A. Mubin	
AMIPRO: A Content-Based Search Engine for Fast and Efficient Retrieval of 3D Protein Structures	739
Meenakshi Srivastava, S.K. Singh, S.Q. Abbas and Neelabh	

Analysis of NIR and VW Light Iris Images on the Bases of Different Statistical Parameters

Harish Prajapati and Rajesh M. Bodade

Abstract To carry out accurate research for person's identification, it is necessary to know about NIR and VW images, by some easy method especially for iris recognition. This work presents method to know diversity and noise in the NIR and VW iris images, on the bases of eight different statistical parameters. For this work four VW databases: UBIRIS.v2, UBIRIS.v1 (season1), UBIRIS.v1 (season2), UPOL and four NIR databases: IIT Delhi.v1, CASIA.v1, CASIA.v4-iris interval, and CASIA.v4-iris twin were chosen. In calculated points, it is found that VW iris databases UBIRIS.v2 and UBIRIS.v1 (season2) posses most diversity. VW images are noisy compared to NIR images. Out of which UPOL images is most noisy. Intensity of VW images are less as compared to the NIR images. Average standard deviation of both NIR and VW images is equal (approx. 13.5).

Keywords NIR (Near infrared rays) • VW (visible wavelength)
Diversity (heterogeneous) • Noisy

1 Introduction

Iris is an annular region between pupil and sclera. It is one of the most important biometric traits useful for personal identification purpose. As it has desirable properties such as uniqueness ($1:10^{31}$), stability (do not change with age), non-invasiveness [1], and reliability (less rejection rate). Moreover, there are fewer chances to cover human iris. Most of the researches in iris recognition are based on NIR images (wavelength range 700–900 nm) [2]. This wavelength region requires cooperation from the user; that is why these NIR images may not be useful for

H. Prajapati (✉)
Chameli Devi Group of Institutions, Indore, India
e-mail: prajapati.harish@gmail.com

R.M. Bodade
Military College of Telecommunication Engineering, Mhow, India
e-mail: rajeshbodade@gmail.com

© Springer Nature Singapore Pte Ltd. 2018
A.K. Somani et al. (eds.), *Proceedings of First International Conference on Smart System, Innovations and Computing, Smart Innovation, Systems and Technologies* 79, https://doi.org/10.1007/978-981-10-5828-8_67


Principal
Chameli Devi Group of Institutions
INDORE

Micro, Small and Medium Enterprises, popularly known as MSMEs, have proven their importance worldwide through contribution in economic development. The MSMEs form the backbone of any country especially the emerging economies. The growth rate of MSMEs directly affects the growth of the economy of an emerging economy like India. In India this sector of 36 million units, today offers job to more than 80 million people. The industry through its more than 6,000 products contributes about 11% to GDP with 45% of total manufacturing output and 40% in the country's exports. The process of liberalization and globalization has opened up new vistas for various sectors of the economy as also posed certain challenges. Implementation of Lean philosophy acts as a catalyst for this growth engine. This work presents the survey and analysis of the enterprises having implemented Lean. It identifies and analyses the 'Technical/Managerial' barriers that affect the implementation of lean; and identify the 'Critical' factors that ensure successful implementation of lean in Indian MSMEs.

Lean in Indian MSMEs

Shrimal, Arvind



Arvind Kumar Shrimal

Writesh Kumar Soni

Lean in Indian MSMEs

Critical Success Factors and Barriers



Dr. Arvind Kumar Shrimal

Professor, Department of Mechanical Engineering,
CD Group of Institutions, Indore, India-452022
Doctor in Industrial Engineering with experience in
Engineering Planning, New Product Development,
Design & Detail Engineering, Inspection, Project
Monitoring & Exporting, Research and Academic.



978-620-0-57005-5

Shrimal, Arvind

Arvind
Principal
Charan Devi Group of Institutions
INDORE

LAP
LAMBERT
Academic Publishing

Arvind Kumar Shrimali
Vimlesh Kumar Soni

Lean in Indian MSMEs

Critical Success Factors and Barriers



Principal
Chandeli Devi Group of Institutions
INDORE

LAP LAMBERT Academic Publishing

http://www.matec-conferences.org

Submit your MATEC papers to the web-conference proceedings pages. For more information, please contact the MATEC Secretariat.

ecp sciences [Home](#) [Series](#) [Archives](#)



MATEC Web of Conferences

[All issues](#) [Series](#) [Forthcoming](#) [About](#)

Q Search



All issues - 11 (2018) 14 (2019)

[Previous issue](#)

[Table of Contents](#)

[Next issue](#)

Free access to the whole issue

MATEC Web of Conferences

Volume 183 (2018)

12th International Conference Quality Production Improvement - QPI 2018

Zaborze near Myszków, Poland, June 18-20, 2018

T. Ulewicz and B. Hakoms (Eds.)

Explore the status of the selected articles. Click on:

Accepted

[View Article](#)

Statement of Peer review

Published online: 31 July 2018

PDF (133.3 KB)


Principal
Charan Devi Group of Institutions
INDORE

Abstracts

Safety in ensuring the quality of production – the role and tasks of standards requirements (100)

Krzysztof Górn

Published online: 11 July 2018

DOI: https://doi.org/10.1007/978-3-319-62000-0_100

ISBN: 978-3-319-62000-0

Abstracts

Healthcare products and IT equipment in Poland – a comparison (101)

Katarzyna Nyk

Published online: 11 July 2018

DOI: https://doi.org/10.1007/978-3-319-62000-0_101

ISBN: 978-3-319-62000-0

Abstracts

Modeling of information security systems in health care medical linguistic analysis (102)

Jozsef Zsuzsanna

Published online: 11 July 2018

DOI: https://doi.org/10.1007/978-3-319-62000-0_102

ISBN: 978-3-319-62000-0

Abstracts

Integrative Structural Modeling of Identified Barriers to Lean Implementation in SMEs (103)

Anand Kumar Singh, Prem Kumar Sen and Shythank Singh Pawar

Published online: 11 July 2018

DOI: https://doi.org/10.1007/978-3-319-62000-0_103

ISBN: 978-3-319-62000-0

Abstracts

Accreditation of research in the Shri Chhatrapati Chhatrapati – various aspects (104)

Atul Gaudik, Pooja Kuchyala, Dhanraj Gokulraj and Janard Pabhyata

Published online: 11 July 2018

DOI: https://doi.org/10.1007/978-3-319-62000-0_104

ISBN: 978-3-319-62000-0

https://www.mateconferences.org/articles/mateconf/abs/2018/42/mateconf_qpi2018_01008/mateconf_qpi2018_01008.html


Principal
Charwell Devi Group of Institutions
INDORE

Interpretive Structural Modeling of identified Barriers to Lean Implementation in SMEs

Arvind Kumar Shrivastava^{1*}, Vinayak Kumar Soma², and Shashank Singh Pawar¹

¹Department of Mechanical Engineering, Chameli Devi Group of Institutions, Indore, M. P., India

²Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, M. P., India

Abstract. Lean practices are implemented in manufacturing companies and services to find hidden waste and attain continuous improvement. Various enterprises have experienced difficulties in the Lean implementation. Following the use of appropriate lean instruments and techniques, there are many other factors that affect success lean implementation process. Researchers have identified a huge number of barriers to implementation of Lean. Understanding the barriers and the interactions between them can be crucial to the success of lean implementation.

Interpretive Structural Modeling (ISM) is one of the established methodologies to bring forward the interrelationships among parameters of an issue or a problem.

Purpose- The purpose of this paper is to create the hierarchy of the various barriers to Lean Implementation according to their importance using the approach of ISM to facilitate Small and Medium enterprises (SMEs) across India. The study is specific to the Small and Medium Enterprises (SMEs) from India.

Keywords: Lean implementation, Small and Medium enterprise (SMEs), Interpretive Structural Modeling (ISM)

1. Introduction

Lean implementation is fast becoming popular in India and the world to eliminate the wastes within an organization and thus improve the performance. Lean strives to create an efficient operation and by bringing together the best practices and concepts of productivity and problem-solving.

It is difficult to move from a traditional production system to a Lean production system. This change requires attention for both processes and people. The availability of extensive documentation on the benefits of the lean manufacturing implementation could not extend it to a large number of companies.

The present study focuses on the barriers to the implementation of the Lean concept in Small and Medium Enterprises (SMEs) in India and to create the hierarchy of the various

* Corresponding author: arvind.kumarh@gmail.com