### 2014 International Conference on Advanced and Agile Manufacturing Systems (ICAM-2014) May 28-30, 2014



Oakland University, 2200 N. Squirrel Road, Rochester, MI 48309, USA The conference web site is located at: www.oakland.edu/secs/icam2014

Current version is dated 5-27-2014

There		May 28, 2014 hops (free for all registrants)	location: Dodge Hall, Room 201, Oaklan	
1:00 PM	3:00 PM	Registration	University	
2:00 PM	3:00 PM	Suren Dwivedi: Lean and Six sigma introduct		
		Development		
3:00 PM	4:00 PM	Biren Prasad: Electronic integrated Product and Process development (e-IPPD)		
4:00 PM	5:00 PM	Hari Yogeshwar: Self-Paced learning- Advanced Mechanical design with computers		
6:30 PM		ISPE executive committee meeting		
	Thursday. N	May 29, 2014	location:	
All technical session	•	allel sessions (Each paper gets 20 minutes)	Dodge Hall, Room 200 TO 203 Oakland University	
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8:30 AM	9:00 AM	Registration & Coffee/Snacks		
9:00 AM	9:15 AM	Introduction by Subra Ganesan Inauguration by Dean Louay Chamra, SECS,	Oakland University and by	
		Dr. Dorothy Nelson, VP Research, Oakland U	•	
9:15 AM	9:45 AM	Keynote 1 – Eric Sheffler, Managing Director, I	MEDC, Michigan Econ Deve.	
9:50 AM	10:20 AM		]	
10:20 AM	10:40 AM	Keynote 2 - Dr. Phares Noel, President, Diversified Engineering Concepts, LLC. Coffee Break		
10:40 AM	11:10 AM	Keynote 3 - Dr. Michael Sobolewski		
11:10 AM	11:40 AM	Keynote 4. Dr. Suren Dwivedi, ULL		
11:40 AM	12:15 PM	Keynote 5 – Dr. Kai Yang, WSU		
12:15 PM	1:00 PM	Lunch Break- Boxed Lunches and Networkin	ng time	
1:00 PM	2:30 PM	Technical presentation – 3 or 4 parallel sessions- 12 to 16 papers		
2:30 PM	3:00 PM	Tea/Coffee/snack		
3:00 PM	4:30 PM	Technical sessions – 3 or 4 parallel sessions – 12 to 16 papers		
6: 00 PM	8:00 PM	BANQUET AT RANGOLI RESTAURANT		
	Friday, M	ay 30, 2014	location: Dodge Hall, Room 200 TO 203	
9:00 AM	9:30 AM	Keynote by Dr. Mukundan Gopalan, Chrysler		
9:30 AM	10:00 AM	Keynote by Dr.Biren Prasad		
10:00 AM	10:30 AM	Keynote by Satyendra Rana		
10:30 AM	11:00 AM	Keynote by Dr Satwant Kaur		
11:00 AM	11:30 AM	Keynote by Dr. Hans Raj Kandikonda		
11:30 AM	12:00 PM	Keynote by Shyam Maheswari		
12:00 PM	1:00 PM	Keynote by Ashok Prajapati		
1:00 PM	1:30 PM	Lunch and Valedictory session	10 to 16 mana ==	
1:30 PM	2:30 PM	Technical session – 3 or 4 parallel sessions - 1	12 to 16 papers	
2:30 PM	4:00 PM	Visit to FAJRI- Fastening and Joining research	h center. Oakland University	
	Suggested Hote	1 1011 to 1 11 1 11-1 asterning and Johning research	an center, Gardanu Chiversity	

Suggested Hotel: (There is a list in the conference web site)

Crowne Plaza Auburn Hills, 1500 Opdyke Road, Auburn Hills, MI 48326. (Around \$125 with breakfast) Or Extended Stay America, 3315 University Drive, Auburn Hills, MI 48326. Ph: 248 340 8888 (around \$70)

#### **DETAILED TECHNICAL SESSION SCHEDULE, ICAM 2014**

Version on 5-26-2014

Technical Session TS1 29th May, 1:30 pm to 3 pm Room 1-- Dodge Hall 200. Session Chair: Dr. Biren Prasad

Paper Number	Paper Title
#14	Glenn Meinhardt and Sankar Sengupta. Optimization of Axle NVH Performance Using the Particle Swarm Optimization Method
	Glenn Meinhardt and Sankar Sengupta. Optimization of Axle NVH Performance Using the Cross
#13	Entropy Method
	Glenn Meinhardt and Sankar Sengupta. Optimization of Axle NVH Performance Using a Genetic
#15	Algorithm
	Pravin M. Kulkarni, Dhirendra Rana, Fisseha Legesse, Sajan Kapil and K. P. Karunakaran. Additive
#16	Manufacturing of Directionally Heat Conductive Objects

# Technical Session TS1 29th May, 1:30 pm to 3 pm Room 2-- Dodge Hall 201. Session Chair: Dr. Hans Raj

	Ankit Sahai, Shanti S Sharma, Rahul Swarup Sharma, K Hansraj and Suren N Dwivedi. An				
11	investigation on the deformation of Al alloy during integrated Extrusion and ECAP				
	Suren Dwivedi, Varun Kumar Pyata, EDUCATIONAL ENHANCEMENT AND ATTRACTING				
55	STUDENTS TO STEM CAREER IN SHIPBUILDING AND MARINE INDUSTRY				
24	Priyank Srivastava, Dinesh Khanduja and V.P Agarwal. MODELING OF AGILE MANUFACTURING SYSTEM				
	Hemant Bohra, Sam N. Ramrattan, Margaret K. Joyce, Paul D. Fleming and Pavel Ikonomov. New Light				
28	Cured Media for use with Cast Prototypes				

### Technical Session TS1 29th May, 1:30 pm to 3 pm Room 3-- Dodge Hall 203, Session Chair: Michael Sobolewski

Makan Taghavi Dilamani. A short review on Crystal Clear methodology and its advantages over the scrum, the popular agile software process model.

Mohammed Iqbal and Aravamudan Gopal. Automated Quality Inspection of Citrus Fruits – A Review Dr. Rajat Setia, Prof. K. Hans Raj and Prof. Suren N. Dwivedi. Comparison of ANN and Statistical Regression Models for Prediction of Average Equivalent Strain in Equal Channel Angular Pressing

## Technical Sessioon TS2 May 29th 3:30 to 5 PM-- Room 1- Dodge Hall 200, Session Chair: Suren Dwivedi

S K Sharma, Anubha Rautela and Rajnish Kumar. Improving the Issues in Procurement Process of
Manufacturer
Rajiv Kumar Upadhyay, Ajay Bangar, Pawan Kumar Singh and Ashish Shastri. Enhancing the leanness of
supply chain by integrated Fuzzy-QFD approach
<a href="Dhirendra Rana">Dhirendra Rana</a>, Pravin M. Kulkarni, K.P. Karunakaran and Asim Tewari, In-Situ Property
Improvements Using A CNC Integrated Pneumatic Hammer

19

#### Technical Sessioon TS2 May 29th 3:30 to 5 PM-- Room 2-- Dodge Hall 201, Session Chair: Phares Noel

Jan-Hinrich Kämper, Arne Stasch and Axel Hahn. A fully-automated manufacturing environment realized through a flexible in house logistic system with smart transportation infrastructure

R S S Prasanth, Bhuvnesh Singhal, Pritam Singh and K Hans Raj. A comprehensive review on modeling and optimization of friction stir welding

41 | Seyed Mirmiran. Need for an Advanced Asset Management System

Brandon J. Voelker1, Muralidhar K. Ghantasala1, Paul V. Engelmann2 and Jeff Wheeler3,

Manufacturing and Electroplating of Nanoengineered Polymers

#### Technical Sessioon TS2 May 29th 3:30 to 5 PM-- Room 3-- Dodge Hall 203, Session Chair: Dr. Kai Yang

31 | Pavel Ikonomov and Jorge Rodriguez. 3D Metal Printing/Machining

Pavel Ikonomov, Azem Yahamed and Dan Fleming. Application of 3d Printing for Human Bone

32 | Replacement

Pavel Ikonomov, Suren Dwivedi and Alamgir Choudhury. Recognition of Moving Objects Using Sensors System

33 | for Human/Robot Teamwork

Pavel Ikonomov and Muralidha Ghantasala. Analyze and Determine the Forces Associated with the Nanoparticle

34 | Movement

35

45

## Technical Sessioon TS2 May 29th 3:30 to 5 PM-- Room 4-- Dodge Hall 202, Session Chair: Dr. Biren Prasad

56 | Shreyas Harish and Thirumalesh H.S. Design and Implementation of an Unmanned Ground Vehicle

Ashidsha Jaleel, Rajendran T K and Lijohn P George. Cloud Manufacturing: Intelligent Manufacturing

26 with Cloud Computing

Jorge Rodriguez, Charles Crouch, Joseph Dementer, Brian Guenther and Leah Vaneeuwen. Mold Design for

58 | Injection Molding Using Additive Manufacturing

59 | Suren N Dwivedi. Project Based Learning for STEM (Science, Technology, Engineering, Mathematics) Education

#### Technical Session TS3 May 30th 1:00 to 2:30 PM -- Room 1-- Dodge Hall 200, Session Chair: Dr. Hans Raj

Gaurav Agarwal, Abhishek Agarwal and Shubham Agarwal. BIPV: Integration of Photovoltaic with the Construction to achieve the concept of Agility

K Mharaj Kumari, Aerosol emissions from Industry and their affect on helath and climate

Khalid Mirza, Sai Prasanna, Michael Truitt and Hudhaifa Jasim. Intuitive 3D-Vision Based Wand for Robot Tool Path Teaching

#### Technical Session TS3 May 30th 1:00 to 2:30 PM -- Room 2- Dodge Hall 201, Session Chair: Dr. Ashok Prajapati

Tyler Bayne1, Spencer Hoin1, Dr. Pnina Ari-Gur1, Dr. Marwa Hassan2, Mr. Peter Thannhauser1, Dr. Roman Rabiej1, Dr. Pavel Ikonomov1, Mr. Jeff Johnston3, and Dr. Dan Litynski, Virtual Reality 3D Simulations of Concrete and Asphalt Laboratories

<u>Pnina Ari-Gur</u>, Andreas Erbisch, Shubram Subramanyam, Ashkan Razania, Andreas Quainoo and Sven Vogel. Formability and Crystallographic Texture in Novel Magnesium Alloys

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### Technical Session TS3 May 30th 1:00 to 2:30 PM -- Room 3-- Dodge Hall 203, Session Chair: Dr. Biren Prasad

48	Mohammad Komaki, Shaya Sheik, Behnam Malakooti, Ruled Based Approach for Scheduling Flow-shop and Job-shop Problems
	Mohammad Komaki, Shaya Sheikh and Behnam Malakooti. Multi-Objective Scheduling Using Rule
49	Based Approach
	Mohammad Komaki, Shaya Sheikh, Behnam Malakooti, Rule Based Layout Planning and its multiple
50	objectives
51	Behnam Malakooti. A synopsis of multiplicative Z-Utility Theory for solving risk problems

Technical Session TS3 May 30th 1:00 to 2:30 PM -- Room 4-- Dodge Hall 202, Session Chair: Dr. Subra Ganesan Pankaj Sharma, Ajai Jain, Performance of dispatching rules in a stochastic dynamic job shop manufacturing system with sequence-dependent setup times

Puneet Mangla , Ashish Agarwal 2, Pulak M Pandey , Subrata Das, A Study of Factors Related to Supply Chain Strategy (SCS)