

ICMET 2009 – TABLE OF CONTENTS

SESSION 1:

A001 - Modal Analysis of Baohua Ro-Ro Ship	1
Rujian Ma, Meihua Dong, Dong Zhao, Menghua Xu	
A005 - A New Formula on Fatigue Crack Propagation	7
Zhenhua Yi, Sheng Sun	
A006 - Vibration Measurement and Load Identification of Offshore Platforms ..	13
Rujian Ma, Guixi Li, Jinshan Lin	
A008 - Design of Super-Precision Micro-Feed Tool Carrier Based on GMM	19
Yu Zhen, Yuan Sha, Zheng Hui, Zhang Zheng-yan, Gu Man, Jiang Xiao-yang, Chen Dingfang	
A009 - Virtual Prototyping of the Megawatt Level Wind Generator Planetary	
Gear	25
Zhang Zheng-yan, Yu Zhen, Chen Ding-fang, Bai Yue-wei, Shen Chen-lin	
A014 - A New-Type Wheel-legged Lunar Rover and Its Mobile Performance	
Analysis	31
Yongming Wang, Xiaoliu Yu, Wencheng Tang	
A015 - Vector Synthesis Interpolation for Cone Spline	37
Dongri Shan, Tao Wang	
A017 - Walkthrough of Virtual NC Machining Scene Based on OSG	43
Yuan Sha, Yu Zhen, Zheng Hui	
A018 - Numerical Investigation on Influence of Nozzle Swirl Blade on Flow	
Field	49
Chuan Li	
A019- Research on NC machining of Contour curve based on Vector Synthesis	
Interpolation of Conic Curves	55
Dongri Shan, Qing Zhang	
A020 - Research on Energy Management Strategy of Fuel Cell/Battery Hybrid	
Electric Automobile	61
Zhifeng Li	

SESSION 2:

A021 - Research on Eyring-Weibull Distribution Based for Accelerated Life Test	
of Cylinders	65
Fu Yongling, Han Guohui	
A026 - The Test Research on the Cutting Characteristic of Oil Sludge	75
Hongling Hou	
A027 - Design of Multi-parameter Monitoring System for Hydraulic Deep hole	
Drilling Rig	81
Meng Zhang, Weixin Lei, Aiguo Yao, Junhua Zhang	
A028 - Automatic Ground Control Point Data Collection through Autonomous	
Mobile Robot	87
Yuliang Zhang, Feng Gao, Lei Tian, Ahamed Tofael	

A031 - Dynamics Simulation Analysis of Bridge crane hoisting mechanism based on ADAMS	93
Feng Min, Xiao Hanbin, lu shi-qing, Zhang Zhengyan	
A033 - Investigation of Modulation Index on Iron Losses in Soft Magnetic Materials Supplied by DMPWM Inverter	99
Chanwit Tangsiriworakul, Chalermchat Manop	
A034 - A Comparision of Iron Losses and Acoustic Noise Supplied By PWM Inverter of DM and SPWM Techniques	105
Chanwit Tangsiriworakul, Siriwich Tadsuan	
A035 - Research on Autobody Panels Developmental Technology Based on Reverse Engineering	111
Hongling Hou, Yongqiang Zhao	
A036 - Numerical Simulation of the Air Bearing Film in the Head-Disk Interface of Hard Disk Drives by Using Meshless Locall Petrov-Galerkin Method .	117
T.Y. Yang, B.J. Shi	
A037 - Spectral Analysis of Finite Amplitude Random Wave Loadings	123
Rujian Ma, Guixi Li	
A043 - Design and Simulation of Heat Dissipation System for HV Power House . of the Seafloor Junction Box	129
Xuhai Yu, Yanhu Chen, Canjun Yang, Dejun Li, Ying Chen	

SESSION 3:

A044 - 3D Frame Structural Analysis Based on Imported Geometry at Preprocessing	137
Valentina Pomazan, Lucian C. Petcu	
A045 - A Contactless Power Transmission System for Underwater Vehicles ..	143
Zesong Li, Dejun Li, Lin Lin, Canjun Yang, Ying Chen	
A050 - An Equivalence Study of Smith Predictor and Internal Model Controller For Process Systems	151
Prashant Prakash, Satya Sheel	
A051 - Free Vibration and Buckling Analysis of Rectangular Plates Under Nonuniform Normal In-Plane Loading	159
Amin Safi Jahanshahi, Seyed Abdolrahim Atashipour	
A052 - Theoretical analysis of sliding friction contact between friction lining and wire rope	165
Yuxing Peng, Zhencai Zhu, Guoan Chen, Binbin Liu	
A054- Development and hybrid Control of Wheeled Robot for Mine Detection	171
Muhammad Rashid, Azlan Hussain, Md Raisuddin	
A122- Construction And Optimization Of New Platforms Based On The Mega-Frame Theory	177
Dong Zhao, Hui Tan, Dongmei Cai, Shaoli Cai	
A123 - Study Of Local Vibration Control for The Offshore Platform Based on The Mega-Frame Theory	183
Dong Zhao, , Hui Tan, Dongmei Cai, Shaoli Cai	

A125 - Flow Characteristics in Shell Side of a New Type Heat Exchanger	189
Liu Jie, Zhang Heping	
A126 - Safety Monitoring System for Crane Structure Based on Optical Fiber Sensor	195
Lu Shiqing, Xiao Hanbin, Deng Ping	
A131 - Integration of Genetic Algorithm Thermo-economic and Environmental Optimization Procedure with a Power Plant Computer Simulator	201
M.H. Khoshgoftar Manesh ¹ , M. Amidpour, M.H.Hamedi	

SESSION 4:

A132 - Optimal Design for High Precision Stiffness Surveying Instrument	207
Xiangning Lu, Tielin Shi, Gang Chen, Zirong Tang	
A133 - Intelligent Vibration Control of Structures Against Earthquakes Using Hybrid Damper	213
A. Anvari Moghaddam, F. Shabani	
A142 - Development of Mathematical Model For Friction Stir Welding of 304L Stainless Steel	221
G Krishna Mohana Rao, Subba Rao, P Prasanna	
A143 - Research And Implementation Of Damage Orientation By General Residual Force Vector	227
He Wei, He Rong, Li Yawei	
A146 - Critical Success Factors for Advanced Manufacturing Technology (AMT)	233
Zahari Taha, Farzad Tahriri	
A150 - Optimal Design of Backhoe Attachment in Backhoe Loader	239
Ji Peng, Zhang Xiangzhou	
A151 - Reliability Analysis and Evaluation of Gas Supply System	245
Wang Xuemei, Yang JianFeng, Zhao Ming, Gong MinQing,	
A156 - Some Tricks of Modeling a Permanent Magnet Motor Using Finite Element Method	251
Liu Xiaohong	
A158 - Design, Simulation and Construction of Two Synchronized DC Motors' Driver for EVs	257
Hossein Mousazadeh, Hossein Mobli	
A160 - Study On Control System of Smart Deflectable Warhead of Tactical Missile	267
Wang Jian, Nie Jianhong, Yang Xuecheng, He Fujun	
A163 - Micro End Milling of Aisi 304 Stainless Steel and Analysis of Micro Surface Roughness	273
Mohammad Yeakub Ali, Ahsan Ali Khan, Khairul Irman Othman and Mohd Aliff Omar	