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AREAS OF EXPERTISE

Manufacturing Engineering

Intelligent Manufacturing, Modelling, Simulation Optimization, Supply, Chain Management, Energy Management, Field Service Management, Maintenance Management, Project Management

EDUCATION

PhD *2001*

Indian Institute of Technology, Chennai

M.E., *1989*

Regional Engineering College Tiruchirappalli

B.E, *1986*

Regional Engineering College Tiruchirappalli

PROFESSIONAL EXPERIENCE

National Institute of Technology, Tiruchirappalli *2019 - Present*

Professor (HAG)

Tiruchirapalli

National Institute of Technology, Tiruchirappalli *2007 - 2019*

Professor

Tiruchirapalli

National Institute of Technology, Tiruchirappalli *2001 - 2007*

Assistant Professor

Tiruchirapalli

National Institute of Technology, Tiruchirappalli *1997 - 2000*

Lecturer - Senior Scale

Tiruchirappalli

National Institute of Technology, Tiruchirappalli *1991 - 1997*

Lecturer

Tiruchirapalli

Karunya Institute of Technology and Sciences, Coimbatore *1990 - 1991*

Lecturer

Coimbatore

RESEARCH PROJECTS

Industrial Energy Management using Neural Networks and fuzzy logic

Role: PI

Year: 2006 | Amount:

Hybrid Decision Making Tool for Intelligent Manufacturing

Role: PI

Year: 2004 | Amount:

HONOURS AND AWARDS

Best Presentation Award *2017*

Awarded by: International Conference ICMIM 2017 Singapore

Best Teacher Award *2008*

Awarded by: National Instiute of Technology Tiruchirappalli

Best Paper Award *2007*

Awarded by: Production Scheduling Track in IERC 2007, Nashville USA

Best Conference Paper *2003*

Awarded by: Business Research conference PSG Tech

Best Management Research Paper *1998*

Awarded by: Sardar Patel University

Best Participant Award *1991*

Awarded by: Technical Summer School from GCT Coimbatore

PROFESSIONAL MEMBERSHIPS

Indian Institute of Welding *2008*

Life Member

Institution of Engineers (India) *2007*

Fellow

Indian Institution of Production Engineers *2007*

Fellow

PUBLICATIONS

1. **Effect of Inter-pass Layer Temperatures on Microstructure and Mechanical Properties of Inconel 625 Fabricated Using Wire and Arc Additive Manufacturing**
   Karmuhilan M.;Kumanan S.
   Journal of Materials Engineering and Performance , Vol. 34 (2025) , pp. 1540-1551
2. **Estimation of tribological performance of selective laser melted SS316L under lubricated conditions using MCDM techniques**
   Veluchamy M.;Kumanan S.
   Multiscale and Multidisciplinary Modeling Experiments and Design , Vol. 8 (2025) , pp.
3. **INFLUENCE OF LASER SHOCK PEENING ON THE TRIBOLOGICAL BEHAVIOR OF ADDITIVELY MANUFACTURED SS316L**
   Veluchamy M.;Kumanan S.
   Surface Review and Letters , Vol. (2025) , pp.
4. **Enhancing surface properties of AA7075-T6 using carbonaceous and ceramic nanoparticle reinforcement**
   Vickram K.;Somasundaram K.
   Welding International , Vol. (2025) , pp.
5. **Microstructural and Mechanical Characterization of Heat-Treated and Laser Shock-Peened SS316L Fabricated by Selective Laser Melting**
   Veluchamy M.;Kumanan S.
   Journal of Materials Engineering and Performance , Vol. (2025) , pp.
6. **Effect of reinforcement and tool traverse speed on corrosion behavior of friction stir processed AA7075-T6 surface nanocomposites**
   Vickram K.;Kumanan S.
   International Journal on Interactive Design and Manufacturing , Vol. (2025) , pp.
7. **Effect of Double-Side Laser Shock Peening on Tensile Behavior of Selective Laser-Melted 316L SS Parts**
   Veluchamy M.;Kumanan S.
   Journal of Failure Analysis and Prevention , Vol. (2025) , pp.
8. **Mechanical Anisotropy and Failure Analysis of Inconel 625 Parts Manufactured Using Wire and Arc Additive Manufacturing (WAAM)**
   Karmuhilan M.;Kumanan S.
   Journal of Failure Analysis and Prevention , Vol. 24 (2024) , pp. 583-590
9. **Investigations on tribological behavior under lubricated condition of post heat treated additively manufactured SS316L parts**
   M V.;Somasundaram K.;V S.
   Industrial Lubrication and Tribology , Vol. 76 (2024) , pp. 1003-1014
10. **Investigation of tool traverse speed on surface integrity of nano composites processed by friction stir process**
    Vickram K.;Kumanan S.
    Proceedings of the Institution of Mechanical Engineers Part N Journal of Nanomaterials Nanoengineering and Nanosystems , Vol. (2024) , pp.

11. **Location-dependent microstructure analysis and mechanical behavior of inconel 625 using Cold Metal Transfer(CMT) based wire and arc additive manufacturing**
    Karmuhilan M.;Kumanan S.
    Vacuum , Vol. 207 (2023) , pp.
12. **Research developments and technological advancements in conventional and non-conventional machining of superalloys–a review**
    Nair A.;Kumanan S.;Prakash C.;Mohan D.G.;Saxena K.K.;Kumar S.;Kumar G.
    Journal of Adhesion Science and Technology , Vol. 37 (2023) , pp. 3053-3124
13. **Microstructural features and corrosion behavior of Inconel 625 components fabricated using Wire and Arc Additively Manufacturing (WAAM)**
    Karmuhilan M.;Somasundaram K.
    Welding International , Vol. 37 (2023) , pp. 617-625
14. **An intelligent novel approach for diesel engine life monitoring using infrared image processing technic**
    Baranitharan P.;Kumanan S.;Sudhagar S.
    Environmental Progress and Sustainable Energy , Vol. 41 (2022) , pp.
15. **A Review on Additive Manufacturing Processes of Inconel 625**
    Karmuhilan M.;Kumanan S.
    Journal of Materials Engineering and Performance , Vol. 31 (2022) , pp. 2583-2592
16. **Fuzzy-based prediction of compression ignition engine distinctiveness powered by novel graphene oxide nanosheet additive diesel–Aegle marmelos pyrolysis oil ternary opus**
    Paramasivam B.;Kumanan S.;Kavimani V.;Varatharajulu M.
    International Journal of Energy and Environmental Engineering , Vol. 13 (2022) , pp. 683-701
17. **Quantitative survey on the machining of super alloys using BibExcel**
    Nair A.;Shanavas K.P.;Kumanan S.
    Aip Conference Proceedings , Vol. 2393 (2022) , pp.
18. **Real time asset tracking in field services using barcode system: a case study**
    Jose G.J.;PrasannaVenkatesan S.;Kumanan S.
    International Journal of Services Operations and Informatics , Vol. 12 (2022) , pp. 40-57
19. **Technicians selection and allocation in field services using a hybrid approach**
    Jose G.J.;Venkatesan S.P.;Kumanan S.
    International Journal of Services and Operations Management , Vol. 43 (2022) , pp. 249-268
20. **Multi-performance optimization in wire EDM of Inconel 617 using GRA and genetic algorithm**
    Nair A.;Kumanan S.;Shanavas K.P.
    Materials Today Proceedings , Vol. 50 (2021) , pp. 1354-1366
21. **Heuristic optimization techniques in abrasive water jet hole making - A case study**
    Nair A.;Kumanan S.;Shanavas K.P.
    Materials Today Proceedings , Vol. 50 (2021) , pp. 1291-1299
22. **Selection of smart fuel opus for diesel engine depending on their fuel characteristics: an intelligent hybrid decision-making approach**
    Paramasivam B.;Somasundaram K.
    Environmental Science and Pollution Research , Vol. 28 (2021) , pp. 62216-62234

23. **Development of an intelligent decision making tool for maintenance planning using fuzzy logic and dynamic scheduling**
    Andrew A.;Kumanan S.
    International Journal of Information Technology Singapore , Vol. 12 (2020) , pp. 27-36
24. **Evaluation and optimization of geometric deviations in abrasive water jet profile cutting of Inconel 617**
    Nair A.;Kumanan S.
    Journal of Testing and Evaluation , Vol. 49 (2020) , pp.
25. **An enhanced genetic algorithm for assembly planning**
    Dev Anand M.;Kumanan S.;Girish R.R.;Selvaraj T.;Asokan P.
    International Journal of Recent Technology and Engineering , Vol. 8 (2019) , pp. 36-42
26. **Design Process Sequencing in Product Development Process Using Design Structure Matrix and Particle Swarm Optimisation Techniques**
    Shajahan C.;Subramanyan E.;Kumanan S.;Firoz N.
    Journal of Physics Conference Series , Vol. 1355 (2019) , pp.
27. **Optimization of size and form characteristics using multi-objective grey analysis in abrasive water jet drilling of Inconel 617**
    Nair A.;Kumanan S.
    Journal of the Brazilian Society of Mechanical Sciences and Engineering , Vol. 40 (2018) , pp.
28. **Investigations on effect of direction of welding on distortion in combined butt and filled joint using finite element analysis**
    Kumanan S.;Vaghela S.
    Indian Journal of Engineering and Materials Sciences , Vol. 24 (2017) , pp. 201-206
29. **Multiple performance optimization of electrochemical drilling of Inconel 625 using Taguchi based Grey Relational Analysis**
    Manikandan N.;Kumanan S.;Sathiyanarayanan C.
    Engineering Science and Technology an International Journal , Vol. 20 (2017) , pp. 662-671
30. **Prediction of multi performance characteristics of wire EDMprocess using grey ANFIS**
    Anish Nair and Kumanan,S
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31. **Optimisation of electrochemical drilling process using Taguchi method and regression analysis**
    N.Manikandan ,S.Kumanan, C.Sathiyanarayanan
    Vol , Vol. 2017 (2017) , pp.
32. **Prediction of multi performance characteristics of wire EDM process using grey ANFIS**
    Kumanan S.;Nair A.
    Iop Conference Series Materials Science and Engineering , Vol. 244 (2017) , pp.
33. **Optimisation of electrochemical drilling process using Taguchi method & regression analysis**
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    International Journal of Machining and Machinability of Materials , Vol. 19 (2017) , pp. 136-159
34. **Multi-performance optimization of abrasive water jet machining of Inconel 617 using WPCA**

Nair A.;Kumanan S.
Materials and Manufacturing Processes , Vol. 32 (2017) , pp. 693-699

35. **Evolutionary fuzzy SVR modeling of weld residual stress**
Edwin Raja Dhas J.;Kumanan S.
Applied Soft Computing Journal , Vol. 42 (2016) , pp. 423-430

36. **Performance assessment of heat exchanger using intelligent decision making tools**
Ahilan C.;Edwin Raja Dhas J.;Somasundaram K.;Sivakumaran N.
Applied Soft Computing Journal , Vol. 26 (2015) , pp. 474-482

37. **Feature-based modelling and process parameters selection in a CAPP system for prismatic micro parts**
Leo Kumar S.P.;Jerald J.;Kumanan S.
International Journal of Computer Integrated Manufacturing , Vol. 28 (2015) , pp. 1046-1062

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N.Manikandan ,S.Kumanan, C.Sathiyanarayanan
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39. **Prediction of Metal Removal Rate in Electrochemical Machining using Multiple Regression Analysis**
N.Manikandan ,S.Kumanan, C.Sathiyanarayanan
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40. **Mathematical Modeling of Micro End Milling Process and Establishing Parameters to Develop A CAPP System, .**
Leo Kumar,S.P., J. Jerald and
486-492 , Vol. 2015 (2015) , pp.

41. **Newer Materials for Supercritical Power Plant Components-A Manufacturability study**
Anish Nair, S. Kumanan
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42. **Experimental Investigation on Welding and Heat Treatment of modified 9Cr-1Mo-V Steel for Supercritical Boilers**
R. Silambarasan, S. Kumanan
204-210 , Vol. 2015 (2015) , pp.

43. **Facility Lay out Optimization using Linear and Non-Linear Mixed Integer Programming**
Manish Patil, S. Kumanan
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44. **Field Service Scheduling using Mixed Integer Programming**
Shantosh Shivhare, G. Jegan Jose, S Kumanan
639-645 , Vol. 2015 (2015) , pp.

45. **Maintenance strategies Selection using Fuzzy FMEA and Integer Programming**
Pranav Sankpal, A Andrew, S Kumanan
503-509 , Vol. 2015 (2015) , pp.

46. **Optimize Field Service Management through Analytics**
G. Jegan Jose, S Kumanan, S Prasanna Venkatesan
529-535 , Vol. 2015 (2015) , pp.

47. **Prediction of Temperature Distribution in Butt welded Joint using Finite Element Analysis**
    S. J. Vaghela, S Kumanan
    228-234 , Vol. 2015 (2015) , pp.

48. **Proceedings of international conference on advances in production and industrial engineering**
    S Kumanan et al.
    National Institute of Technology Tiruchirappalli , Vol. (2015) , pp.

49. **Multi response optimization of electrochemical drilling of titanium Ti6Al4V alloy using Taguchi based grey relational analysis**
    Manikandan N.;Kumanan S.;Sathiyanarayanan C.
    Indian Journal of Engineering and Materials Sciences , Vol. 22 (2015) , pp. 153-160

50. **Neuro evolutionary model for weld residual stress prediction**
    Edwin Raja Dhas J.;Kumanan S.
    Applied Soft Computing Journal , Vol. 14 (2014) , pp. 461-468

51. **A Review on Current Research Aspects in Tool Based Micromachining Processes**
    Leo Kumar, S, P., Jerald, J. and S. Kumanan
    Vol 29 No.11-12 : 1291-1337 , Vol. 29(11-12) (2014) , pp. 1291-1337

52. **Process parameters optimization for micro end-milling operation for CAPP applications**
    Leo Kumar S.P.;Jerald J.;Kumanan S.;Aniket N.
    Neural Computing and Applications , Vol. 25 (2014) , pp. 1941-1950

53. **Automatic Feature Extraction and CNC Code Generation in a CAPP System for Micromachining**
    Leo Kumar, S, P; Jerald,
    1987-1997 , Vol. 2014 (2014) , pp.

54. **Investigations of process parameters of Electrochemical machining of titanium (Ti6Al4V) alloy using Grey Relational Analysis**
    Kumanan, S; Manikandan, N; Sathiyanarayanan, C
    305-306 , Vol. 2014 (2014) , pp.

55. **Selection of technician in field service management using a mathematical model**
    Kumanan,S ; Jose,G
    NCPE/2014/016 , Vol. 2014 (2014) , pp.

56. **Influence of post weld heat treatment on mechanical properties of modified 9Cr-1Mo-V steel**
    Kumanan, S; Silambarasan, R
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57. **Finite Element Analysis of submerged arc welding**
    Kumanan, S; Vaghela, S,J
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58. **A review on current research aspects in tool-based micromachining processes**
    Leo Kumar S.P.;Jerald J.;Kumanan S.;Prabakaran R.
    Materials and Manufacturing Processes , Vol. 29 (2014) , pp. 1291-1337

59. **An intelligent process planning system for micro turn-mill parts**
    Leo Kumar S.;Jerald J.;Kumanan S.

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60. **Modeling and prediction of machining quality in CNC turning process using intelligent hybrid decision making tools**
    Ahilan C.;Kumanan S.;Sivakumaran N.;Edwin Raja Dhas J.
    Applied Soft Computing Journal , Vol. 13 (2013) , pp. 1543-1551

61. **Modeling and prediction of HAZ using finite element and neural network modeling**
    Edwin Raja Dhas, J; S Kumanan
    13-24 , Vol. 2013 (2013) , pp.

62. **An Expert System for Cutting Tool Selection for Micromachining Processes**
    Leo Kumar, S, and P. Jerald, J.
    133-137 , Vol. 2013 (2013) , pp.

63. **Experimental Investigation of Micro End Milling of Cast Grade Virgin PMMA**
    Leo Kumar, S, P; Jerald, J; Kumanan, S;Aniket Nargundkar
    321-324 , Vol. (2013) , pp. 321-324

64. **Experimental Investigation of Micro Drilling of C360 Brass**
    Leo Kumar, S, P and Jerald, J
    325-328 , Vol. (2013) , pp. 325-328

65. **Experimental investigation and optimisation of process parameters in micro-electrical discharge machining**
    Jerald J.;Kumanan S.;Leo Kumar S.P.;Chandrakar H.V.
    International Journal of Manufacturing Technology and Management , Vol. 27 (2013) , pp. 88-100

66. **A neuro - fuzzy based positioning system of stationary robot manipulator arm**
    Anand M.D.;Selvaraj T.;Kumanan S.
    Genetic Algorithms Fuzzy Systems and Website Classification , Vol. (2012) , pp. 91-112

67. **Supply chain risk prioritization using a hybrid MCDM approach**
    Prasanna Venkatesan S.;Kumanan S.
    Advanced Materials Research , Vol. 488-489 (2012) , pp. 406-410

68. **A Multiobjective discrete particle swarm optimization algorithm for supply chain network design**
    Prasanna Venkatesan,
    Vol11: 375-406 , Vol. 2012 (2012) , pp.

69. **Application of Hybrid Vikor Model in selection of maintenace strategy**
    Ilangkumaran, M. and Kumanan, S.
    Vol.5,No.2: 59-81 , Vol. 2012 (2012) , pp.

70. **Decsion making in location selection : An Integrated Approach with clustering and Topsis**
    Kumar, K; Kumanan, S
    Vol.11, No.1: 1-14 , Vol. 2012 (2012) , pp.

71. **Integrated Scheduling of FMS using evolutionary algorithms**
    Udhayakumar, P; Kumanan, S.
    Vol.61 No 5-8: 621-635 2012 , Vol. 2012 (2012) , pp.

72. **Simulation Modeling for Supply Chain sourcing under risk**
    Prasanna Venkatesan, S; Kumanan, S

Paper Number 37 , Vol. 2012 (2012) , pp.

73. **Supply Chain Risk Prioritization using a hybrid AHP and PROMOTHEE approach**
    Prasanna Venkatesan, S. Kumanan
    V. 13, No 1, pp. 19-41 2012 , Vol. 2012 (2012) , pp.

74. **Manufacturing Application of Micromachining for automobile components**
    Leo kumar, S, P; Jerald, J; Kumanan, S
    C67-C70 , Vol. 2012 (2012) , pp.

75. **Some metaheuristic approaches for optimising tardiness of job and tool in a flexible manufacturing system**
    Udhayakumar, P ; Kumanan, S
    Vol4,No.3: 219-252, 2012 , Vol. 2012 (2012) , pp.

76. **Supply Chain Risk prioritazation using a hybrid MCDM approach**
    Prasanna Venkatesan,
    Vol 488-499: 406-410, 2012 , Vol. 2012 (2012) , pp.

77. **Fault detection and Fault Tolerance methods for**
    Dev Anand, M;
    No 7 :213-224 , Vol. 2012 (2012) , pp.

78. **Prediction of Weld Quality**
    Edwin Raja Dhas, J; Somasundaram Kumanan;
    Vol.11, No 2: 131-148 , Vol. 2012 (2012) , pp.

79. **Supply chain risk prioritisation using a hybrid AHP and PROMETHEE approach**
    Venkatesan S.P.;Kumanan S.
    International Journal of Services and Operations Management , Vol. 13 (2012) , pp. 19-41

80. **Integrated scheduling of flexible manufacturing system using evolutionary algorithms**
    Udhayakumar P.;Kumanan S.
    International Journal of Advanced Manufacturing Technology , Vol. 61 (2012) , pp. 621-635

81. **Multi-objective supply chain sourcing strategy design under risk using PSO and simulation**
    Prasannavenkatesan S.;Kumanan S.
    International Journal of Advanced Manufacturing Technology , Vol. 61 (2012) , pp. 325-337

82. **Application of hybrid VIKOR model in selection of maintenance strategy**
    Ilangkumaran M.;Kumanan S.
    International Journal of Information Systems and Supply Chain Management , Vol. 5 (2012) , pp. 59-81

83. **A multi-objective discrete particle swarm optimisation algorithm for supply chain network design**
    Venkatesan S.P.;Kumanan S.
    International Journal of Logistics Systems and Management , Vol. 11 (2012) , pp. 375-406

84. **Robotics in Online Inspection and Quality Control Using Moment Algorithm**
    M Dev Anand, T Selveraj, S Kumanan, T Ajith Bosco Raj
    Advances in Production Engineering and Management , Vol. 7 (2012) , pp. 27-38

85. **Weld residual stress prediction using artificial neural network and fuzzy logic modeling**
    Edwin Raja Dhas J.;Kumanan S.

Indian Journal of Engineering and Materials Sciences , Vol. 18 (2011) , pp. 351-360

86. **Supplier selection using combined AHP and GRA for a pump manufacturing industry**
Sandeep M.;Kumanan S.;Vinodh S.
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87. **Application of fuzzy SMART approach for supplier selection**
Sandeep M.;Kumanan S.;Vinodh S.
International Journal of Services and Operations Management , Vol. 9 (2011) , pp. 365-388

88. **Modelling of residual stress in Butt Welding**
Edwin Raja Dhas, J; Kumanan, S
Vol. 26: 1-6 , Vol. 2011 (2011) , pp.

89. **Prediction of shell andtube heat exchanger performance using artificial neural networks.**
Ahilan, C; Kumanan, S ; Sivakumaran,N
307-312 , Vol. 2011 (2011) , pp.

90. **An Integrated fuzzy QFD and MCDM approach for Facility location Selection**
Kumar, K;Kumanan, S
ICIE 101 , Vol. 2011 (2011) , pp.

91. **Optimization of CNC turning of AISI 304 Austenitic Stainless Steel using Grey Based Fuzzy logic with multiple performance characteristics**
Ahilan, C ans S. Kumanan
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92. **Online Performance assessment of heat exchanger using artificial neural networks**
Ahilan, C;Kumanan, S; Sivakumaran, N
International Journal of Energy and Environment , Vol. Vol 2, No5: (2011) , pp. 829-844

93. **Optimization of Parameters for Submerged Arc weld using Non Conventional Techniques**
Edwin Raja Dhas, J; Kumanan, S
Vol 11: 5198-5204 , Vol. 2011 (2011) , pp.

94. **Weld residual prediction using Artificial neural networks and fuzzy logic modeling**
Edwin Raja Dhas, J;
, Vol. 2011 (2011) , pp.

95. **Optimization of parameters of submerged arc weld using non conventional techniques**
Dhas J.;Kumanan S.
Applied Soft Computing Journal , Vol. 11 (2011) , pp. 5198-5204

96. **Modeling of residual stress in butt welding**
Dhas J.;Kumanan S.
Materials and Manufacturing Processes , Vol. 26 (2011) , pp. 942-947

97. **Design and implementation of an intelligent controller for a split air conditioner with energy saving**
Ahilan C.;Kumanan S.;Sivakumaran N.
Advances in Modelling and Analysis C , Vol. 65 (2010) , pp. 21-40

98. **Neuro hybrid model to predict weld bead width in submerged arc welding process**
Edwin Raja Dhas J.;Kumanan S.
Journal of Scientific and Industrial Research , Vol. 69 (2010) , pp. 350-355

99. **Application of taguchi based grey relational analysis in multi objective optimization of turning process**
Ahilan, C;
Vol.5,No. 3: 171-180 , Vol. 2010 (2010) , pp.

100. **Artificial Immune System based algorithm to solve linear and loop layout problems in Flexible Manufacturing System**
Satheesh Kumar,R, M;
Vol 10 No.1-3: 165-179 , Vol. 2010 (2010) , pp.

101. **Automation of blanking die desigh parameters selection using an intelligent system**
Leo Kumar, S, P; Kumanan,S ; Ahilan,C ; Mohan Kumar, R, S
Vol.1 No.1 9-13 , Vol. 2010 (2010) , pp.

102. **Bicriteria allocation of customers to warehouses using a particle swarm optimisation**
Prasanna Venkatesan,
Vol.9, No.1: 65-81,2010 , Vol. 2010 (2010) , pp.

103. **Location selection- An Intergrated PSO with fuzzy clustering approach**
Kumanan,S ; Kumar, K ; Edwin Raja Dhas, J
Vol.1 No.1 31-42 , Vol. 2010 (2010) , pp.

104. **Modeling and analysis of cutting parameters influence on power consumption and surface roughness for CNC turning of AISI304**
Ahilan, C
M003 1-6 , Vol. 3 (2010) , pp. 1-6

105. **Fuzzy VIKOR approach for selecting an optimum maintenance strategy**
Kumanan, S ; Ilangkumaran, M
28-35 , Vol. 2010 (2010) , pp.

106. **Location selection An Integrated Particle Swarm Optimization with fuzzy clustering approach**
Kumanan, S; Kumar, K ; Edwin Raja
473-480 , Vol. 2010 (2010) , pp.

107. **Automation of blanking die design parameters selection using intelligent system**
Leo Kumar, S, P; Kumanan, S; Ahilan, C; Mohan kumar, R, S
578-580 , Vol. 2010 (2010) , pp.

108. **Prediction of Weld parameter based on weld geometry in SAW using intelligent decision making tool**
Kumanan Somasundaram;Edwin Raja
414-419 , Vol. 2010 (2010) , pp.

109. **Selecting the best maintenance strategy using AHP and VIKOR approaches**
Ilangkumaran, M; Kumanan, S
MC05 1-6 , Vol. 2010 (2010) , pp.

110. **Optimizing Tardiness of Job and Tool in a FMS using Genetic and Ant Colony Optimization Algorithm**
Udhayakumar, P;
SH 07 , Vol. 2010 (2010) , pp.

111. **Design and Implementation of an intelligent controller for a spilit air conditioner with**

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Ahilan, C and S. Kumanan

65(1) 21-40 , Vol. 2010 (2010) , pp.

112. **Modelling and optimization of submerged arc welding process parameters using particle swarm optimization technique**

J Edwin Raja Dhas and Somasundaram Kumanan

Vol. 4 Issue 2 154-165 , Vol. 4(2) (2010) , pp. 154-165

113. **Selection of partner companies in extended enterprise using fuzzy AHP**

Cherian Jos B.;Kumanan S.

International Journal of Services Economics and Management , Vol. 2 (2010) , pp. 322-331

114. **Modelling and optimisation of submerged arc welding process parameters using particle swarm optimisation technique**

Dhas J.E.R.;Kumanan S.

International Journal of Enterprise Network Management , Vol. 4 (2010) , pp. 154-165

115. **Sequencing and scheduling of job and tool in a flexible manufacturing system using ant colony optimization algorithm**

Udhayakumar P.;Kumanan S.

International Journal of Advanced Manufacturing Technology , Vol. 50 (2010) , pp. 1075-1084

116. **Bi-criteria allocation of customers to warehouses using a particle swarm optimisation**

Prasanna Venkatesan S.;Kumanan S.

International Journal of Operational Research , Vol. 9 (2010) , pp. 65-81

117. **An artificial immune system-based algorithm to solve linear and loop layout problems in flexible manufacturing systems**

Satheesh Kumar R.M.;Asokan P.;Kumanan S.

International Journal of Product Development , Vol. 10 (2010) , pp. 165-179

118. **Task scheduling of AGV in FMS using non-traditional optimization techniques**

Udhayakumar P.;Kumanan S.

International Journal of Simulation Modelling , Vol. 9 (2010) , pp. 28-39

119. **Multi-objective optimisation of CNC turning process using grey based fuzzy logic**

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121. **Optimizing tardiness of Job and Tool in a FMS using Particle Swarm Optimization algorithm**

Udhayakumar, P; Kumanan, S

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122. **Multi objective task scheduling of AGV in flexible manufacturing system using GA and PSO algorithm**

Udhayakumar, P. and Kumanan, S.

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123. **Optimizing tardiness of job and tool in a FMS using Genetic algorithm**
Udhayakumar, P; Kumanan, S
15-18 , Vol. 2009 (2009) , pp.

124. **Neural Network modeling of Electron Beam Welding**
Edwin Raja Dhas, J; Kumanan, S
157 , Vol. 2009 (2009) , pp.

125. **Design and implementation of fuzzy logic controller for an air conditioner with energy saving**
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