

**CURRICULUM VITAE OF Dr. S. KUMANAN**



Dr S. Kumanan is Professor in the Department of Production Engineering, National Institute of Technology Tiruchirappalli India. He completed his bachelors in Production Engineering and Masters in Manufacturing Technology from National Institute of Technology Tiruchirappalli (RECT) and obtained his Doctorate degree from Indian Institute of Technology Madras, Chennai, India. He has published about 70 papers in refereed International journals and 30 papers in National journals. He has published about 45 papers in National conferences and about 70 in International conferences. His research interests are in the areas of Intelligent Manufacturing Systems, Product and Process optimization and Intelligent Industrial energy management systems. He was Head of the Department of Production Engineering during 2012-2015. He has served as Associate Dean of Industrial consultancy and Sponsored Research and as Dean of Student Welfare in NITT.

1.	<b>Name</b>	Dr S Kumanan
2.	<b>Designation:</b>	Professor
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5.	<b>Email (Primary): <i>kumanan@nitt.edu</i></b>	<i>somasundaram.kumanan@gmail.com</i>
6.	<b>Field(s) of Specialization:</b>	Intelligent Manufacturing Systems

**7. Employment Profile**

Job Title	Employer	From	To
Graduate Engineer	S.R.V.S. Ltd	1986	1987
Teaching/Research Associate	REC Tiruchirappalli	1987	1990
Lecturer	Karyuna Institute Coimbatore	1990	1991
Lecturer	REC Tiruchirappalli	1991	2001
Assistant Professor	NIT Tiruchirappalli	2001	2007
Professor	NIT Tiruchirappalli	2007	Till date

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## 8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
PhD	IIT Madras	2001	-	Manufacturing Management
M. E.	REC Tiruchi	1989	First	Manufacturing Technology
B.E	REC Tiruchi	1986	First	Production Engineering
HSC	State (TN)	1982	First	Science and Maths

## 9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Associate Dean	NIT Tiruchirappalli	2006	2008
Dean (Students Welfare)	NIT Tiruchirappalli	2008	2010
Head of the Department	Production Engg/NIT Tiruchi	2012	2015

## 10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member BOS	PSG College of Tech	2007	2009
Member BOS	Coimbatore Institute of Tech	2014	2016
Member BOS	Karunya University	2014	2017
Member BOS	Anna University	2017	2018
Chairman IC	Anna University Affiliation	2015	2016
Member Accreditation	National Board of Accreditation	2006	2015

## 11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
1991	Best Participant Award	Technical Summer School from GCT Coimbatore
1998-99	Best Management Research Paper	Sardar Patel University
2003	Best Conference Paper	Business Research conference PSG Tech
2007	Best Paper Award	Production Scheduling Track in IERC 2007, Nashville USA
2007-2008	Best Teacher Award	NIT Tiruchirappalli

## 12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

**13. Details of Academic Work**

(i) Curriculum Development

Chairman Board of Studies of UG and PG courses 2012-2015

(ii) Courses taught at Postgraduate and Undergraduate levels

Year	List of subjects/labs	UG/PG	Class strength
2012-13	Manufacturing System Simulation Lab	UG	99
	Modeling and Simulation	PG	28
	Tooling for Manufacturing	PG	28
2013-14	Introduction to Production Engineering	UG	100
	Modeling and Simulation	PG	
	Simulation Lab	PG	
	Tooling for Manufacturing	PG	
2014-15	Manufacturing System Simulation Lab	UG	100
	Introduction to Production Engineering	UG	
	Tooling for Manufacturing	UG	
	Data Analytics Lab	PG	
	Modeling and Simulation	PG	
	Simulation Lab	PG	
2015-16	Flexible Tooling and Automated Inspection	PG	
	Intelligent Manufacturing Systems	UG	
	Data Analytics Lab	PG	
	Tooling for Manufacturing	UG	
	Modeling and Simulation	PG	

(iii) Projects guided at UG and PG level

UG Projects: 40 PG Projects: 130

(iv) Other contribution(s)

**14. Details of Major R&D Projects**

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
<b>Hybrid Decision Making Tool for Intelligent Manufacturing:</b>	MHRD	2004	2006	Completed
<b>Industrial Energy Management using Neural Networks and fuzzy logic:</b>	MHRD	2006	2008	Completed

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## 15. Number of PhDs guided : 12

Research Scholar	Title of Research	GUIDESHIP	Year of Completion
Mr C P Jesuthanam	Investigations on function replacing hybrids for decision making in machining	<b>GUIDE</b>	<b>2007</b>
Mr C A Shajahan	Some investigations on modeling, simulation and optimization of product development process	<b>GUIDE</b>	<b>2007</b>
Mr M Dev Anand	Some Investigations on Intelligent Decision Making in Robot Position and Motion Control	<b>COGUIDE</b>	<b>2007</b>
Mr R M Sathish Kumar	Some evolutionary algorithms for facility layout design in FMS	<b>COGUIDE</b>	<b>2008</b>
Mr J Edwin Raja Dhas	Development of Intelligent Decision Making Tools for Submerged Arc Welding of Mild Steel	<b>GUIDE</b>	<b>2008</b>
Mr K Raja	Managing manufacturing projects using simulation and meta heuristics	<b>GUIDE</b>	<b>2010</b>
Mr K Ilangkumaran	Hybrid multi criteria decision making techniques for selection of maintenance strategy	<b>GUIDE</b>	<b>2010</b>
Mr C Ahilan	Investigations on Energy Conservation efforts in Industrial systems	<b>GUIDE</b>	<b>2012</b>
Mr S Prasanna Venkatesan	Design and evaluation of supply chain Strategies with risk prioritization	<b>GUIDE</b>	<b>2012</b>
Mr P Udaya kumar	Scheduling of flexible manufacturing system using Metaheuristics	<b>GUIDE</b>	<b>2012</b>
Mr K. Kumar	Selection of facility location In supply chain using integrated approaches	<b>GUIDE</b>	<b>2012</b>
Mr S P Leokumar	Investigations on Intelligent Process Planning System for tool based micromachining Processes	<b>COGUIDE</b>	<b>2015</b>

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### 16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of event	Role	Event Organized	Venue
28-04-2015 to 29-04-2015	Conclave on Academic reforms CAR 2015	National	Participant	TEQIP-II	NIT Trichy
09-04-2015 to 11-04-2015	Conference on advances in Materials, manufacturing and applications	International	Session chair	TEQIP-II	NIT Trichy
01-08-2014 to 02-08-2014	29 <sup>th</sup> National convention of production engineers and national seminar on green manufacturing strategies	National	Presented Paper	IE Chennai	Chennai
12-07-2010 to 14-07-2010	Chaired Technical Sessions and presented papers in conference on	International	Chairperson, Paper presenter	FAIM	East Bay California USA
30-09-2008 to 04-10-2008	Management Training "Seven Habits for Highly Effective People"	Local	Participant	Franklin covey India	Munnar , India
23-07-2007 to 25-07-2007	Educational excellence in colleges and universities	National	Participant	IIM Calcutta	Calcutta
01-11-2006 to 30-11-2006	Training in Industrial and Information Engineering at College of Engineering,	International	Visiting Faculty	TEQIP	University of Tennessee USA
10-01-2006 to 14-01-2006	Winter School on Soft Computing tools, Simulation and Applications	National	Participant	Indian Statistical Institute	Kolkata
05-01-2006 to 07-01-2006	Staff Development Programme, "Preparing for Challenges ahead"	Local	Participant	Administrative Staff	College of India
20-12-2004 to 31-12-2004	Programme on Emerging trends in CAD/CAM Theory and Practice	Local	Participant	STTP	NIT Trichy
21-07-2004 to 24-07-2004	Identification of training needs for staff and faculty	Local	Participant	NITTTR	NIT Trichy
08-05-2004 to 09-05-2004	Assessors Workshop	National	Participant	NBA-AICTE	NIT Surathkal
22-01-2004 to 23-01-2004	National conference on Modeling and Analysis of Production systems	National	Presented Paper	NITT	NIT Trichy

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Date (s)	Title of Activity	Level of event	Role	Event Organized	Venue
04-12-2003 to 08-12-2003	Training on CAD/CAM using Pro E Wild fire	Local	Participant	Pro-E	Trichy
09-06-2003 to 20-06-2003	Short Term course on Safety and Environment Management Emerging Trends	Local	Participant	ISTE AICTE	Trichy
15-03-2003 to 16-03-2003	National conference on Modelling and Simulation	National	Presented paper	MOSIM	Annamalai University
28-12-2002 to 30-12-2002	International conference on Operations Research and Development	International	Presented paper	Anna University	Chennai
16-12-2002 to 27-12-2002	Short Term Training Programme on Modelling and Analysis	National	Participant	ISTE AICTE	NI Trichy
21-01-2002 to 23-01-2002	VMAP packages customer training	National	Participant	EDS Technology	Bangalore
07-01-2002 to 08-01-2002	Symposium on Manufacturing Excellence	National	Presented paper	IIT	Madras
01-07-1998 to 31-08-2001	Ph. D Programme under QIP	National	Participant	Continuing Programme	IIT Madras
06-08-2001 to 08-08-2001	International Conference of logistics and Supply chain management	National	Presented paper	ICLSM	Coimbatore
14-12-2000 to 16-12-2000	19 <sup>th</sup> All India Manufacturing Technology Design and Research Conference	National	Presented paper	AIMTDR	IIT Madras
30-11-2000 to 03-12-2000	14 <sup>th</sup> International Conference on CAR&FOF'98	National	Presented paper	PSG Tech	Coimbatore, India
15-04-1998 to 11-05-1998	Training Programme	National	Participant	QIP	IIT Madras
06-02-1998 to 07-02-1998	Intelligent Manufacturing System a Technology Watch	National	Participant	CIT	Coimbatore
13-01-1998 to 15-01-1998	Customer Training Computer Aided Factory Information Systems	National	Participant	IIT	Mumbai
28-11-1997 to	Training Programme	National	Participant	QIP	IIT Madras

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Date (s)	Title of Activity	Level of event	Role	Event Organized	Venue
16-12-1997					
21-11-1997 to 22-11-1997	All India seminar on Information Technology for 21st Century	National	Participant	IE	Tiruchirappalli
11-06-1997 to 27-06-1997	Training Programme	National	Participant	QIP	IIT Madras
28-03-1997 to 29-03-1997	National Seminar on Mechatronics	National	Presented Paper	Anna University	Madras
10-03-1997 to 15-03-1997	Industry Institute Partnership	Local	Participant	AICTE-ISTE	NIT Trichy
27-10-1995 to 28-10-1995	National Conference-QUEST 95	National	Presented Paper	QUEST	DRDL India
21-10-1994 to 22-10-1994	Integrated manufacturing a ninth national convention of Production Engineers	National	Presented Paper	IE India	BHEL Tiruchirappalli
01-07-1992 to 14-07-1992	Course on Maintenance Engineering	National	Participant	ISTE, Mysore	Jayachamarajendra College of Engineering
31-05-1992 to 13-06-1992	Course on CNC Machines, Systems and Maintenance	National	Participant	ISTE	IIT Madras
04-05-1992 to 16-05-1992	Course on Advances in Maintenance Management	National	Participant	ISTE	GEC Thrissur
18-12-1991 to 22-12-1991	Short Term Course on Industrial Electronics	National	Participant	IIFE, Keeranur	Mookambigai college of Engineering
02-12-1991 to 15-12-1991	Course on AI-Languages: Lisp and Prolog	National	Participant	ISTE	GCT Coimbatore
20-05-1991 to 01-06-1991	Short term course on Robots in Manufacturing	National	Participant	ISTE	IIT Madras
03-06-1990 to 16-06-199	Course on Recent Developments in Factory Automation Technology	National	Participant	ISTE	PSG Tech Coimbatore

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Date (s)	Title of Activity	Level of event	Role	Event Organized	Venue
05-06-1989 to 17-06-1989	Course on Nondestructive Testing of Materials	Local	Participant	ISTE	REC Tiruchirappalli
23-05-88 to 23-08-1988	Industrial Training	National	Participant	BHEL	Tiruchirappalli

### 17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
Two Days Workshop on " Power of Simulation using FLEXSIM	National	10-11 April, 2015	Co-ordinator	NIT Trichy
International conference on Advances in Production and Industrial Engineering INCAPIE 2015	International	20-21 Feb, 2015	Conference Chair	NIT Trichy
Workshop on Sustainable Manufacturing Under TEQIP Phase II	National	18-19 July, 2013	Co-ordinator	NIT Trichy
Workshop on Recent trends in System Simulation Under TEQIP Phase II	National	01 -02 August, 2013	Co-ordinator	NIT Trichy
Short Term Training Programme on "Introduction to Intelligent Systems Engineering"	National	13-17 <sup>th</sup> July, 2009	Co-ordinator	NIT Trichy
Short Term Training Programme on "Quality through Six Sigma Concept	National	14-18 <sup>th</sup> December, 2009	Co-ordinator	NIT Trichy
Sixth International Conference on Supply Chain Management and Information Systems	International	December, 2008	Publication Committee chair	NIT Trichy
Workshop on Laser Material Processing under TEQIP	National	9 -10 <sup>th</sup> January, 2007	Co-ordinator	NIT Trichy
QIP course on Recent Trends in Manufacturing Management	National	11-15 <sup>th</sup> July, 2007	Co-ordinator	NIT Trichy
Workshop on Excel for Scientists and Engineers Under TEQIP community service	National	20-21 <sup>st</sup> January, 2006	Co-ordinator	NIT Trichy



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Faculty Induction Programme under TEQIP for newly recruited lecturers	National	11 <sup>th</sup> May, 2006.	Co-ordinator	NIT Trichy
National conference on Modelling and Simulation of Production Systems	National	22-23 <sup>rd</sup> January, 2004	Co-ordinator	NIT Trichy

### 18. Invited Talks delivered

Topic	Date	Inviting Organization
International conference on control, instrumentation, communication & computational technologies (ICCICCT 2014)	10-11 <sup>th</sup> July 2014	Noorul Islam University
Valedictory Address on "Challenges for engineering in 21st Century"	2012	Chenduran College of Engg and Technology
Introduction to Lean Manufacturing for 2012	2012	BHEL Executives Training
Maintenance Engineering" a series of lecture at	Mar, 1998	Food Craft Institute, Tiruchirappalli
Scheduling with Random Search Method	10-21 <sup>st</sup> Nov, 2003	STTP on Modeling and Optimization of Manufacturing Systems JJ College of Engineering and Technology Tiruchirappalli
Geometrics - A method for Reduction of Rework	12-23 <sup>rd</sup> May, 2003	AICTE ISTE STTP on Dimensional Engineering and Tolerance analysis , NIT Tiruchirappalli
Genetic Algorithms-A Search Method	30 <sup>th</sup> Mar, 2004	Institution of Engineers (India) Tiruchirappalli Local Chapter
Discrete-Event Simulation Of Manufacturing Systems	7-9 <sup>th</sup> Oct, 2004	National Workshop On Simulation of Manufacturing National Institute Of Technology, Warangal
Simulation in CAD/CAM	20-31 <sup>st</sup> Dec, 2004	AICTE ISTE STTP Programme on Emerging Trends in CAD/CAM,NIT Tiruchirappalli
Welding Process Optimization - Indian Welding Society	23rd July 2005	Coimbatore IWS Local Chapter
Invited Lecture Modeling with Petri Nets"	18 <sup>th</sup> Mar, 2006	Modeling and Simulation Conference Annamalai University, Chidambaram. India
State of Art in Modeling and Simulation" at	21 <sup>st</sup> Sep, 2006	National Institute Of Technology, Warangal. on.
Modeling, Simulation and Virtual	24 <sup>th</sup> May, 2006	Malnad College of Engineering, Hassan Karnataka

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Topic	Date	Inviting Organization
Manufacturing		
Lasers in Manufacturing	9-10 <sup>th</sup> Jan, 2007	Workshop on Laser Materials Processing (LAMP 2007) NITT-
Petri Nets Applications in Manufacturing and Management	19 <sup>th</sup> Nov, 2007	AICTE Sponsored SDP programme ' Models and Solution tools for enhancement of organisation productivity' on PSG College of Technology Coimbatore
Collaborative Manufacturing /Extended Enterprises for Improved Productivity	19 <sup>th</sup> Nov, 2007	AICTE Sponsored SDP programme ' Models and Solution tools for enhancement of organisation productivity' PSG College of Technology Coimbatore
Simulation using finite element Methods	24-25 <sup>th</sup> Jan 2008	Two days workshop on Finite Element Analysis for welding processes at NITT
Monte Carlo simulation Applications	27 <sup>th</sup> Feb 2008	AICTE QIP Short term course on Advanced tools and Techniques for Research in Engineering Problems @ NITT.
Manufacturing Process modeling and Simulation -State of Art	11 <sup>th</sup> July 2008	MHRD-AICTE short term course on Advances in material processing @ NITT

**19. Membership of Learned Societies**

<b>Grade of Membership</b>	<b>Professional Organization</b>	<b>Year of induction</b>	<b>Remarks</b>
<b>Fellow</b>	<b>Institution of Engineers (India)</b>	2007	F-112119-3
<b>Fellow</b>	<b>Indian Institution of Production Engineers</b>	2007	SLF 3075
<b>Life Member</b>	<b>Indian Society of Technical Education</b>	1990	LM 7308
<b>Life Member</b>	<b>Indian Welding Society</b>	2005	L00566
<b>Member</b>	<b>Institution of Industrial Engineers</b>	2014	880044944

**20. Academic Foreign Visits**

University of Washington USA for Research on Engg Education	20-10-2010
University of Tennessee USA for Research on Information Engg	18-07-2010 to 19-07-2010
University of Toledo Ohio USA for MOU followup	15-07-2010 to 17-07-2010
Chaired Technical Sessions and presented papers in International conference on FAIM East Bay California USA	12-07-2010 to 14-07-2010
Training at AIT Bangkok, Thailand on System Management and Capacity Improvement of Technical Education	23-11-2008 to 30-11-2008
TEQIP Training in Industrial and Information Engineering at College of Engineering, University of Tennessee USA	01-11-2006 to 30-11-2006

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## 21. Publications

### (A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Prashant Reddy, J; Kumanan, S; Krishnaiah Chetty, O,V	Application of Petrinets and a genetic algorithm to multi mode multi resource constrained Project Scheduling	International Journal of Advanced Manufacturing Technology	V17 305-314	2000
Kumanan, S; Prasanna Venkatesan, S; Prasanna Kumar, J	A Genetic Algorithm for Optimization Of Supply Chain Logistics Network	International Journal of Applied Management and Technology	3 (2): 41-51	2005
Kumanan, S; Prasanna Kumar, J; Kumar, K	Facility Location in a Supply Chain Network using Microsoft Excel	Productivity	Vol.46,.2-3: 346-350	2005
Kumanan, S;Prasanna Venkatesan, S	Supply Chain Simulation using Excel	Industrial Engineering journal	Vol.34 (11):10-11	2005
Siva Sankar, R ; Asokan, P; Kumanan,S; Selvaraj,T	Adaptive Genetic Algorithm Approach For Optimization Of Multi Pass Turning Operations	Manufacturing Technology Today	Vol.4,No.5:1 2-16	2005
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Path optimization algorithm for an autonomous mobile Robot	International Journal of Applied Management Technology	V4 No 2 149- 161	2006
Kumanan, S; Babu, M; Shajahan, C,A	Modeling, Simulation and Analysis of Product Development Process Using MSEXCEL	Int Jrl applied Management Tech.	V4 No 2 125- 139	2006
Kumanan, S; Prasanna Venkatesan, S; Kumar, K; Prasanna Kumar, J	Performance Analysis Of Supply Chain Logistics Network using Genetic Algorithm and Simulation	International Journal Agile Systems and Management	V1 N4 450- 462	2006
Chandrasekaran, M; Asokan, P; Kumanan, S;Balamurugan, T	Sheep Flocks Heredity Model Algorithm for Solving Job Shop Scheduling Problems	International Journal of Applied Management and Technology	Vol 4 No 1 pp 79-100	2006
Asokan, P; Kumanan, S; Sathish Kumar, S	Selection of optimal conditions for CNC multi-pass face milling system using evolutionary computation	Manufacturing Technology Today	Vol.5: 26-30	2006
Udhayakumar, P; Kumanan, S; Asokan, P	Routing and Dispatching of Automated Guided Vehicles in a Flexible Manufacturing Systems using Simulated Annealing Algorithm	Manufacturing Technology Today	Vol.5 5-8	2006

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Kumanan, S; Prasanna Venkatesan, S; Balakumaran, S	Multi objective optimization of supply chain logistics network using a genetic algorithm	Journal of Management Research	Vol.1 No.3: 43-53	2006
Srinivasa Raman, V; Barathi Raja,K; Asokan, P; Kumanan, S	Meta heursitic approach for multi objective gear box optimization	Manufacturing Technology Today	Vol.1, No.1: 29-39	2006
Ravi Kumar, R; Narendar Singh, N; Asokan, P; Kumanan, S	Optimisation of Parameters in Electric Discharge Machining using Genetic Algorithm	Manufacturing Technology Today	Vol.5:12-14	2006
Kumanan,S; Nanne saheb, S, K; Jesudhanam, C,P	Prediction of Machining Forces using Neural networks trained by Genetic Algorithm	Journal of Institution of Engineers (India)	Vol.87: 11-15	2006
Kumanan, S; Edwin Raja Dhas, J;Murugan, N	Welding Process control and optimization	Welding Journal	IWS :19-27	2006
Srinivasa Raman, V; Barathi Raja, K ; Asokan, P; Kumanan, S	Multi Speed Gear Box Design using Swarm intelligence	Manufacturing Technology Today	Vol.5:14-19	2006
Chandrasekaran, M; Asokan, P; Kumanan,S; Balamurugan, T; Nickolas, S	Solving Job Shop Scheduling Problem using artificial immune system	International Journal of Advanced Manufacturing Technology	V31 N 5-6 580-593	2006
Satishkumar, S; Asokan, P; Kumanan, S	Optimization Of Depth Of Cut In Multipass Turning Using Nontraditional Optimization Techniques	International Journal of Advanced Manufacturing Technology	V29 N3-4 232-238	2006
Kumanan, S;Jegan Jose, G, Raja, K	Multi-Project Scheduling using a Heuristic and a Genetic Algorithm	International Journal of Advanced Manufacturing Technology	v31 3-4 p360-366	2006
Kumanan, S; Krishnaiah Chetty, O, V	Estimating Product Development Cycle Time using Petrinets	International Journal of Advanced Manufacturing	28(1-2):215-220	2006

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
		Technology		
Kumanan,S; Jesuthanam,C , P; Ashok Kumar, R	Application Of Multiple Regression and the development of a Predictive Neural Network Trained By Genetic Algorithm For Machining Quality Prediction	International journal of Manufacturing science and Technology	Vol 10 No 2 85-96	2007
Dev Anand, M; Janarthanan, J; Selvaraj, T; Kumanan, S	A Hybrid Fuzzy Logic and Artificial Neural Networks Algorithm Based Fault Detection and Isolation for Industrial Robot Manipulators	International Journal of Manufacturing Research	V2 N0 3 279-302	2007
Udhayakumar, P; Kumanan, S; Asokan, P	Job And Tool Sequencing In Flexible Manufacturing System Using A Particle Swarm Optimization Technique	International Journal of Manufacturing science and Technology	vol 9 No 2 p.55-66	2007
Dev Anand, M;Selvaraj, T; Kumanan, S; Austin Johnny, M	Identification and Specification Of Robot Kinematic Parameters Using Artificial Neural Networks	International Journal for Manufacturing Science and Technology	Vol 9 No 2,33 -46	2007
Chandrasekaran, M; Asokan, P; Kumanan, S; Arunachalam, S	Application of selective breeding algorithm for job shop scheduling problems	International Journal for Manufacturing Science and Technology	Vol 9 No 1 103- 118	2007
Chandrasekaran, M; Asokan, P; Kumanan, S; Umamaheswari, S; Rao, C,S,P	Multi Objective Optimization for Job shop scheduling using Sheep Flocks Heredity Model Algorithm	International Journal of Manufacturing Science and Technology	Vol 9 No 2 p.47 -54	2007
Moorthy, P, S, S; Kumanan, S; Pradeep Kumar, V	Delinquency Stage Prediction using Markov Processes and Logistic Regression	International Journal of applied Management	Tech.170-181 V5	2007
Raja, K; Kumanan, S	Resource Leveling using Petrinet and Memetic Approach	American Journal of Applied Science	4 (5) 317-322	2007
Kumanan,S; Prasanna Venkatesan, S; Prasanna Kumar, J	Optimization of supply chain logistics network using random search techniques	International Journal of Logistics Systems and Management	Vol 3, No.2: 252-266	2007
Nanne sahib, S,K ; Kumanan, S	Modeling Of Hot Extrusion Process Using Artificial Neural Networks Implanted With Genetic Algorithm	Journal of Manufacturing Engineering	Vol.2, Issue.4	2007
Edwin Raja Dhas, J; Kumanan, S	Prediction of weld bead geometry in SAW using regression method	Manufacturing TechnologyToday	Vol.6 No.11: 31-34	2007

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Christu Paul, R; Asokan,P; Kumanan, S	Facility Layout Design Using Particle Swarm Approach	Manufacturing Technology Today	Vol.6 No.7: 23-28	2007
Jesuthanam, C, P; Kumanan, S	Prediction of surface roughness in turning using RBFNN-FL technique	Manufacturing Technology Today	Vol.6 No.5 :22-26	2007
Jesuthanam, C,P; Kumanan, S; Asokan, P	Surface roughness prediction using hybrid neural network	Machining Science and Technology	Vol 11 Issue 2: 271-286	2007
Siva Sankar,R; Asokan, P; Saravanan, R; Kumanan, S; Prabhakaran, G	Selection of machining parameters for constrained machining problem using evolutionary computation	International Journal of Advanced Manufacturing Technology	892 – 901, Vol 32 9-10	2007
Kumanan, S; Edwin Raja Dhas, J.; Ashok Kumar, R	Development of Welding Residual Stress Predictor using a Function-Replacing Hybrid System	International Journal of Advanced Manufacturing Technology	Vol.31, No 11-12:1083– 1091	2007
Kumanan, S; Edwin Raja Dhas, J; Gowthaman, J	Determination of SAW process parameters using taguchi method and regression analysis	Indian Journal of Engineering and Material science	Vol.14:103- 111	2007
Edwin Raja Dhas, J; Kumanan, S	ANFIS for prediction of weld bead width in Submerged Arc Welding Process.	Journal of Scientific and Industrial Research	Vol.66 No.4:335-338	2007
Kumanan,S; Raja, K	Modeling and Simulation of Projects with Petrinets	American Journal of Applied Science	5 (12) 1742- 1749	2008
Satheesh Kumar, R ,M; Asokan, P; Kumanan, S; Varma, B	Scatter Search algorithm for single row layout in FMS	Journal of Advances in Production Engineering and Management	Vol 3 No 4 193-204	2008
Kumanan, S ; Raja, K	Petrinets with Particle Swarm optimization technique for resource leveling	International Journal for Manufacturing science Production	Vol 9 No 3- 4,193-202	2008
Shyjit, K; Ilangkumaran, M; Kumanan, S	Multicriteria Decision Making approach to evaluate optimum maintenance strategy in textile industry	International Journal of Quality in Maintenance Engineering	Vol. 14, No.4, 375- 386 2008.	2008
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Application of multi criteria decision making for selection of robotic system using Fuzzy AHP	International Journal of Management and Decision Making	Vol 9 No.1 75-98	2008

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Dev Anand, M; Selvaraj, T; Kumanan, S	An Adaptive fuzzy logic approach for fault detection in Robot manipulators with parametric uncertainty	Manufacturing Technology Today	Vol.7 No.2:15-23	2008
Shajahan, C, J; Kumanan, S	Modeling and Simulation of Product Development Process using Simquick	Manufacturing Technology Today	Vol.7(1)3-7	2008
Satheesh Kumar, R, M ; Asokan, P ; Kumanan, S	Design of loop layout problem in Flexible Manufacturing System using non traditional optimization technique	International Journal of Advanced Manufacturing and Technology	Vol 38, No 5-6: 594-599	2008
Dev Anand , M; Selvaraj, T; Kumanan, S; Janarthanan, J	Fault Diagnosis System for a Robot Manipulator through Neuro Fuzzy Approach	International Journal of Modeling Identification and Control	Vol 3 (2): 181-192	2008
Dev Anand , M; Selvaraj, T; Kumanan, S	Fault Detection and Isolation in Robotic Manipulator via Hybrid Neural Networks,	International Journal of Simulation Modelling	Vol 1, 5-16	2008
Kumanan, S; Jesuthanam, C, P; Ashok Kumar, R	Application of multiple regression and ANFIS for the prediction of surface roughness	International Journal of Advanced Manufacturing Technology	Vol. 35, n 7-8, 778-788	2008
Kumanan, S ; Raja, K	Multi Project scheduling using a Heuristic and Memetic algorithm	International Journal of Manufacturing science and Production	Vol 10 249-258	2009
Ahilan, C.; Kumanan, S; Sivakumaran, N	Multiobjective optimization of CNC turning process using grey based fuzzy logic	International Journal of Machining and Machinability of materials	Vol 5 No.4 434-451	2009
Ilangkumaran, M; Kumanan, S	Selection of maintenance policy for textile industry using hybrid Multicriteria Decision Making approach	International Journal of Manufacturing technology and management	volume 20, issue 7 - : 1009 - 1022	2009
Dev Anand, M;	A Neuro-Fuzzy Based Positioning System of Stationary Robot	International Journal of	Vol 2 Issue 1	2009



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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Selvaraj,T ; Kumanan, S	Manipulator Arm	Information Intelligence and Knowledge	35-52	
Edwin Raja Dhas, J; Kumanan, S	Prediction of weld bead width in SAW of mild steel fuzzy logic system	Journal of Manufacturing engineering	Vol.4, Issue.3: 188-192	2009
Prasanna Venkatesan, S; Kumanan, S ; Karthik, S	Multi-Criteria Decision Making in a Supply Chain Using a Genetic Algorithm	The Icfai University Journal of Supply Chain Management	Vol.6, No. 2: 67-82	2009
Satheesh Kumar, R, M, Asokan, P; Kumanan, S	Artificial Immune System based algorithm for unidirectional loop layout problem in Flexible Manufacturing System"	International of Advanced Manufacturing and Technology	Volume 40, Numbers 5-6 553-565	2009
Bobin Cherian Jos, S;Kumanan, S	Selection of partner companies in extended enterprise using fuzzy AHP	International Journal of services, economics and Management	Vol 2 3/4 322-339	2010
Dev Anand, M; Selvaraj, T; Kumanan, S	A Neuro fuzzy based fault detection and fault tolerance methods for Industrial Robot Manipulators	International Journal of Adaptive and Innovative systems	Vol 1 3/4 334-371	2010
Ahilan, C ; Kumanan, S; Sivakumaran ,N	Design and Implementation of an intelligent controller for a split air conditioner with energy saving	AMSE Journal of advances in Modeling,- Series C : Automatic control (AMSE)	65(1) 21-40	2010
Ahilan, C; Kumanan, S; Sivakumaran, N	Application of taguchi based grey relational analysis in multi objective optimization of turning process	Journal of Advances in Production Engineering and Management	Vol.5,No. 3: 171-180	2010
Prasanna Venkatesan, S; Kumanan, S, S	Bicriteria allocation of customers to warehouses using a particle swarm optimisation	International Journal of Operational Research	Vol.9, No.1: 65-81,2010	2010
Edwin Raja Dhas, J;	Weld Quality Prediction of submerged arc welding process using a	Journal of Advances in	Vol.5, No1:	2010

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Kumanan, S, S	function replacing hybrid system	Production Engineering and Management	5-12, 2010	
Satheesh Kumar,R, M; Asokan, P; Kumanan, S, S	Artificial Immune System based algorithm to solve linear and loop layout problems in Flexible Manufacturing System	International Journal of Product Development	Vol 10 No.1-3: 165-179	2010
J Edwin Raja Dhas ; Somasundaram Kumanan	Modelling and optimization of submerged arc welding process parameters using particle swarm optimization technique	International Journal of Enterprise Network Management	Vol. 4 Issue 2 154-165	2010
Edwin Raja Dhas J ; Somasundaram Kumanan	Effect of process Parameters in bead geometry and hardness in submerged arc weld on mild steel	National Journal of Technology	Vol.6 N 2:66-74	2010
Kumanan,S ; Kumar, K ; Edwin Raja Dhas, J	Location selection- An Intergrated PSO with fuzzy clustering approach	Journal of Emerging technology in mechanical science and engineering	Vol.1 No.1 31-42	2010
Leo Kumar, S, P; Kumanan,S ; Ahilan,C ; Mohan Kumar, R, S	Automation of blanking die design parameters selection using an intelligent system	Journal of Emerging technology in mechanical science and engineering	Vol.1 No.1 9-13	2010
Udhayakumar, P; Kumanan, S	Sequencing and scheduling of job and tool in a flexible manufacturing system using Ant Colony Optimization algorithm	International Journal of Advanced Manufacturing Technology	Vol.50: 1075-1084	2010
Udhayakumar, P; Kumanan, S, S	Task Scheduling of AGV in FMS using Non traditional optimisation techniques	International Journal of Simulation Modelling	Vol.9, No.1: 28-39, 2010	2010
Edwin Raja Dhas J; Somasundaram Kumanan, S	Neuro hybrid model to predict weld bead width in submerged arc welding process	Journal of Scientific and Industrial Research	Vol.66 N 4: 350-355	2010
Ahilan, C; Kumanan, S; Sivakumaran, N	Optimization of CNC turning of AISI 304 Austenitic Stainless Steel using Grey Based Fuzzy logic with multiple performance characteristics	Journal of machining and forming Technologies	Vol 3,No 3-4(6): 231-250	2011
Ahilan, C;Kumanan, S; Sivakumaran, N	Online Performance assessment of heat exchanger using artificial neural networks	International Journal of energy and environment (IJEE)	Vol 2, No5: 829-844	2011
Sandeep, M ; Kumanan,	Application of Fuzzy SMART approach for supplier selection	International Journal of	Vol 9, No.3:	2011

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
S; Vinodh, S		Services and Operations Management	365-388	
Sandeep, M; Kumanan, S; Vinodh, S	Supplier selection using combined AHP and GRA for a pump manufacturing industry	International Journal of Logistics Systems and Management	Vol 10, No.1: 40-52	2011
Kumar, K; Kumanan, S	An Integrated Fuzzy QFD and AHP Approach for Facility Location Selection	IUP Journal of Supply Cahin Management	Vol.VIII No 4 Page 1-12	2011
Edwin Raja Dhas, J; Kumanan, S	Optimization of Parameters for Submerged Arc weld using Non Conventional Techniques	Applied Soft Computing	Vol 11: 5198-5204	2011
Edwin Raja Dhas, J; Kumanan, S	Modelling of residual stress in Butt Welding	Materials and Manufacturing Processes	Vol. 26: 1-6	2011
Edwin Raja Dhas, J; Kumanan Somasundaram	Weld residual prediction using Artificial neural networks and fuzzy logic modeling	Indian Journal of Engineering and Material science	Vol.18 351-360	2011
Dev Anand, M; Selvaraj, T; Kumanan, S	Fault detection and Fault Tolerance methods for Industrial Robot Manipulators based on hybrid intelligent approach	International Journal of Advances in Production Engineering and Management	No 7 :213-224	2012
Dev Anand, M ; Selvaraj, T; Kumanan, S	Robotics in online inspection and quality control using moment algorithm	Journal of Advances in Production Engineering and Management	Vol 7: 27-38	2012
Prasanna Venkatesan, S; Kumanan, S	A Multiobjective discrete particle swarm optimization algorithm for supply chain network design	International Journal of Logistics Systems and Management	Vol11: 375-406	2012
Prasanna Venkatesan, S; Kumanan, S	Supply Chain Risk prioritazation using a hybrid MCDM approach	Advanced Materials Research	Vol 488-499: 406-410, 2012	2012
Prasanna Venkatesan, S; Kumanan, S	Supply Chain Risk Prioritization using a hybrid AHP and PROMOTHEE approach	International Journal of Services and Operations Management	V. 13, No 1, pp. 19-41 2012	2012
Ilangkumar, M;	Application of Hybrid Vikor Model in selection of maintenace	International Journal	Vol.5,No.2:	2012

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
Kumanan, S	strategy	of Information system and supply chain management	59-81	
Udhayakumar, P ; Kumanan, S	Some metaheuristic approaches for optimising tardiness of job and tool in a flexible manufacturing system	International Journal of Advanced Operations Management	Vol4,No.3: 219-252, 2012	2012
Kumar, K; Kumanan, S	Decision making in location selection : An Integrated Approach with clustering and Topsis	IUP Journal of Operations Management	Vol.11, No.1: 1-14	2012
Udhayakumar, P; Kumanan,S	Integrated Scheduling of FMS using evolutionary algorithms	International of Advanced Manufacturing and Technology	Vol.61 No 5-8: 621-635 2012	2012
Prasanna Venkatesan, S; Kumanan, S	Multi Objective Supply Chain Sourcing Strategy Design under Risk using PSO and Simulation	International Journal of Advanced Manufacturing and Technology	Vol 61, No 1-4: 325-337 2012	2012
Edwin Raja Dhas, J; Somasundaram Kumanan; Jesuthanam, C, P	Prediction of Weld Quality using intelligent decision making tools	Artificial Intelligence Research	Vol.11, No 2: 131-148	2012
Edwin Raja Dhas, J; S Kumanan	Modeling and prediction of HAZ using finite element and neural network modeling	Advances in Production Engineering & Management	13-24	2013
Leo Kumar, S, P; Jerald, J; Kumanan, S; Chandrakar, H,V	Experimental Investigation and Optimixation of Process Paramerter in Micro-Electrical Discharge Machining	InteranationalJournal of Manufacturing Technology and Management	Vol.27, Nos.1/2/3 :88-100	2013
Kumar, K; Kumanan, S	A hybrid decision support model for Location Selection	Journal of advances in engineerng science	2013 (Inprint)	2013
Kumar, K; Kumanan, S	Integrated Facilitly location - analysis using Mathematical Modeling	National Journal of Technology	Vol 9 No 2 17-23	2013
Ahilan, C; Somasundaram Kumanan; Sivakumar,	Modelling and Prediction of Machining Quality in CNC turning process using intelligent hybrid decision making tools	Applied Soft Computing	Vol 13: 1543-1551	2013

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Author(s)	Title of Paper	Journal	Volume & Page No.	Year
N; Edwin Raja Dhas, J				
Leo Kumar, S, P; Jerald, J; Kumanan, S; Prabakaran, R	A Review on Current Research Aspects in Tool Based Micromachining Processes	Materials and Manufacturing Processes	Vol 29 No.11-12 : 1291-1337	2014
Leo Kumar, S, P; Jerald, J; Kumanan, S	An intelligent process planning system for micro turn-mill parts	International Journal of Production Research	Vol 52 No.20:6052-6075	2014
Leo Kumar, S, P; Jerald, J; Kumanan, S; Aniket, N	Process parameters optimization for micro end-milling operation for CAPP applications	Neural Computing and Applications	Vol 25 No 7-8 1941-1950	2014
Leo Kumar, S, P; Jerald, J; Kumanan, S	Feature-based modelling and process parameters selection in a CAPP system for prismatic micro parts	International Journal of Computer Integrated Manufacturing	Vol 28 Issue 10 1046-1062	2015
John Edwin Raja Dhas, Somasundaram Kumanan	Neuro Evolutionary model for weld residual stress prediction	Applied Soft Computing	Volume 14 Part C, 461-468.	2014
Ahilan, C; Edwin Raja Dhas, J ; Kumanan, S; Sivakumaran, N	Performance assessment of heat exchanger using intelligent decision making tools	Applied Soft Computing	Volume 26, January 2015, Pages 474-482	2015
N.Manikandan, S.Kumanan, C.Sathiyarayanan	Multi Response optimization of electro chemical drilling of Titanium Ti 6Al 4V alloy using taguchi based grey relational analysis	Indian Journal of Engineering and Material science	Vol 22 153-160	2015
N.Manikandan, S.Kumanan, C.Sathiyarayanan	Optimisation of electrochemical drilling process using Taguchi method and regression analysis	International Journal of Machining and Machinability of materials	Vol X No.x xxx-xxx	2016
J Edwin Raja Dhas, Somasundaram Kumanan	Evolutionary fuzzy SVR modeling of weld residual stress	Applied soft computing	Vol. 42: 423-430	2016

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### (B) Conferences/Workshops/Symposia Proceedings

Authors	Title	Conference Theme & Venue	No.	Year
Kumanan, S	Quality in design of axisymmetric deep drawing die by computer aided analysis	National Conference-QUEST 95 DRDL India,	D 33-D36	1995
Kumanan, S	Computer Aided Quality Assurance	International Conference Cad, Cam, Robotics And Factories Of Future INCARF'96- India	564-569	1996
Kumanan, S	Methods Of Industry Institute Partnership-A Means For Mutual Excellence	AICTE-ISTE Sponsored Seminar in REC, Trichy	8 to 15	1997
Kumanan, S ; Saravanan, S	Quality and Reliability On Mechatronic Systems	Seminar on Mechatronics, Anna University	3.1 - 3.5	1997
Jeetendra Kumar, V, A; Kumanan, S; Krishnaiah Chetty, O,V	Application of Petri nets to Project Management	14th International Conference on CAR&FOF 1998, Coimbatore, India, (Best Management Research Paper 1998-1999- Sardar Patel University Award)	853-860	1998
Kumanan, S ; Saravanan, S	Design Of Cellular Manufacturing Using Genetic Algorithm	Intelligent Manufacturing System a Technology Watch.	5.5.1 - 5.5.6	1998
Kumanan,S ; Krishnaiah Chetty,O,V	Project Management through Petrinets	16th International Conference of CAD/CAM, Robotics and Factories of Future, Trinidad, West Indies, CARS&FOF 2000	645-652	2000
Kumanan,S; Krishnaiah Chetty, O,V	Analyzing Product Development time with Petrinets	19th All India Manufacturing Technology Design and Research Conference	601-606	2000
Kumanan,S; Krishnaiah Chetty, O,V	Managing Business Process reengineering with Petri Nets	International Conference of logistics and Supply chain management, Coimbatore, India.	280-285	2001
Kumanan,S; Krishnaiah Chetty,O,V	A new method for optimal resource leveling using Petri nets and GA	17th International Conference of CAD/CAM, Robotics and Factories of Future, Durban, South Africa 2001	662-669 ISBN 1-86840-432-3	2001
Kumanan,	Resource Leveling using Petrinets and Genetic	International Conference on Operations	CC20	2002

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Authors	Title	Conference Theme & Venue	No.	Year
S; Krishnaiah Chetty, O,V	Algorithms	Research, Anna University, India.		
Kumanan,S ; Krishnaiah Chetty,O,V	Time-cost trade-off analysis for manufacturing using Petri nets and GA	Symposium on manufacturing Excellence, IIT Madras	157-158	2002
Jesudhanam, C,P; Kumanan, S	In-Process Quality Control in Machining using Artificial Neural Network	National Conference on Advanced Machine Vision Systems for Societal Applications	216-218	2003
Prasanna Venkatesan, S; Kumanan,S	Supply Chain Planning using Excel	National Conference on Business Research Coimbatore India (Adjudged as Best Paper)	4.30 - 4.34	2003
Raja, K; Kumanan, S; Krishnaiah Chetty, O,V;	Petri Net- A Modeling and Simulation Tool for Manufacturing Projects	National Conference on Business Research Coimbatore India	4.34 - 4.41	2003
Boopalan, N; Kumanan, S	Fixture Layout optimization using FEM and GA	National Conference on World Class Manufacturing Coimbatore India	342-347	2003
Baskar, P; Kumanan, S	Fuzzy Expert System for tool selection for turning Center	National Conference on World Class Manufacturing Coimbatore India	354-359	2003
Senthil Kumaran, S; Kumanan, S	Virtual Manufacturing - A case study with production centered approach	National Conference on world Class Manufacturing, Coimbatore, India.	329-334	2003
Kamesh, S; Kumanan,S	Prediction of Machining Quality Using Taguchi's Technique And Artificial Neural Networks	National Conference on Modeling and Simulation Indiapp.	E7-E12	2003
Nannee Saheb, S,D; Kumanan, S	Modeling of Hot Extrusion Process using Artificial Neural Networks and Genetic Algorithm	National symposium on Advances in Metal Forming India	SAM F	2003
Shajahan, C,A; Kumanan, S	Challenging issues in Managing New Product Development	International Conference on Manufacturing and Management, India 165-170 2004	165-170	2004
Prasanna Venkatesan, S ; Kumanan,S	Production Distribution Network analysis in Supply chain using Excel	National conference on Challenges in achieving Global Quality	473-476	2004
Canute,X ; Kumanan,S	Computer Aided Maintenance Planning System	National Conference on B Modeling and Analysis of Production Systems	69-73	2004
Raja, K ; Kumanan, S	Project Network Techniques For Modern Manufacturing	National Conference on B Modeling and Analysis of Production Systems pp 63-68, 2004	63-68	2004
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Solution Approach problem Related in the field of service Robot Task Planning	International Conference on Operations research for Development (ICORD-V) India	451-456	2005

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Authors	Title	Conference Theme & Venue	No.	Year
Dev Anand,M; Selvaraj, T; Kumanan, S	Development of CAD/CAE based Robot Mapping and Localization Error in structured and unstructured environment	14th ISME International Conference on Mechanical engineering in Knowledge Age India	14-21	2005
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Neurofuzzy based intelligent Motion Planning for Robotics	IX Annual International; Conference of the society of Operations Management	1-10	2005
Christu Paul; AsokanP; Kumanan, S	An Approach to Solve Single Row Machine Layout Problem Using Tabu Search Technique	IX Annual International Conference of the Society of Operations Management.	41-45	2005
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	A Neuro Fuzzy Positioning System of Robot Arm	International Conference on Productivity and Quality Research IIT Delhi India	780-790	2005
Asha, A; Udhayakumar, P; Kumanan, S	A Heuristic approach for routing and dispatching of automated guided vehicles	International Conference on Advances in materials, product design and manufacturing systems India	601-607	2005
Siva Sankar,R; Asokan, P; Kumanan, S	Optimization of cutting parameters for Multipass Turning operation using Particle Swarm Optimization	ICCES'05, INDIA	3292-3297	2005
Shajahan, C, J; Kumanan, S	Design for six sigma: A Break through strategy for managing Product Development process	International Conference on Productivity and Quality Research IIT Delhi India	Abstr act	2005
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Motion planning strategies with GA /Adaptive Neurofuzzy for intelligent robots tasks in a different environment	International conference in Advances in materials product design and manufacturing systems ICAMPM 2005	1116 - 1121	2005
Jesudhanam, C, P; Kumanan, S	Prediction and Control of Machining Quality using Neuro Fuzzy System	21st All India Manufacturing Technology Design and Research Conference	948-954	2005
Jesudhanam, C, P ; Kumanan, S	Prediction of Surface Roughness using Fuzzy Logic System	National Conference on Modeling and Analysis of Production Systems	156-160	2005
Kumanan,S; Prasanna Venkatesan, S; Balakumaran, S	Multi objective optimization of supply chain logistics network using a genetic algorithm	Fourth National Conference on Business Research Coimbatore India	43-53	2005
Jafferson, J,M; Jesuthanam, C,P; Kumanan, S	Prediction of Surface Roughness using AI techniques - A review	National conference on Recent Advances in Mechanical Engineering	83-90	2005
Dev Anand, M; Selvaraj, T; Kumanan, S; Janarthanan, J	Neuro Fuzzy Based Fault Diagnosis System for Robot Manipulator	22nd International Conference on CAD/CAM Robotics and Factories of the Future (CARs &FOF) India	822-832	2006



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Authors	Title	Conference Theme & Venue	No.	Year
Udhayakumar, P; Kumanan, S	AGV Task Scheduling of flexible manufacturing systems using genetic algorithm	International Conference on “Total engineering, analysis and manufacturing technologies, TEAM TECH 2006	P 83	2006
Dev Anand,M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Fault Detection and isolation in robotic manipulator via hybrid learning neural networks	First International and 22 nd AIMTDR conference	123-129	2006
Asokan, P; Kumanan, S; SathisKumar, S	Selection of optimal cutting conditions for CNC multitool drilling system using Genetic algorithm	First International and 22 nd AIMTDR conference	283-288	2006
Satheesh Kumar, R, M; Asokan, P; Kumanan, S	Design of loop layout in Flexible manufacturing system using non traditional optimization technique	First International and 22 nd AIMTDR conference	315-319	2006
Dev Anand, M; Selvaraj, T; Kumanan, S; Mago Stalany, V	Tolerance Specification and Identification of Robot Kinematic Parameters Using Genetic Algorithms	International Conference on Intelligent Systems and Control (ISCO)	395-398	2006
Ch rasekaran, M; Asokan,P; Kumanan, S; Umamaheswari, S	A hybrid approach for optimization of multiobjective job shop scheduling problems	International conference eon Global Manufacturing and Innovation	1- 6	2006
Dev Anand, M; Selvaraj, T; Kumanan, S; Mago Stalany, V; Ansalam Raj, T,G	Optimization of Robot Parameters Using Genetic Algorithms	International Conference on Global Manufacturing and Innovation (GMI),Paper India.	91	2006
Siva Sankar, R; Asokan, P; Kumanan, S	Optimization of parameters for Turning operations using ANN and Particle Swarm Optimization	CARs and FOF '06, India	334-341	2006
Dev Anand, M; Selvaraj, T; Kumanan, S;Ajith Bosco Raj	Robotics in Online Inspection and Quality Control	International conference on “Resource Utilization and intelligent system” (INCRUIS-2006) India	307-314	2006
Christu Paul,R; Asokan, P ; Kumanan,S; Vijayakumar, R,L	Tabu search algorithm to solve machine layout problem	All India Seminar on Manufacturing and Management of Intelligent materials IE (India)	138-145	2006
Dev Anand, M; Selvaraj,T; Kumanan, S; Austin Johnny, M	Fuzzy Logic Based Control of Stationary Robot Arm	2nd National Conference on Advances in Manufacturing and Recourse (AMARA) India	99-106	2006
Dev Anand, M; Selvaraj, T; Kumanan,	Artificial Neural Network Based Control of Stationary Robot Arm	National Conference on Advances in Manufacturing Engineering (NCME) India	300-310	2006

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Authors	Title	Conference Theme & Venue	No.	Year
S; Austin Johnny, M				
Dev Anand, M; Selvaraj, T; Kumanan, S; Gunavathi, N	Tolerance Optimization of Robot Arm Parameters using Taguchi Method	National Conference on Contemporary Approaches in Design and Manufacturing (CADAM)	1.34 - 1.42	2006
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	Analytic Hierarchy Process for Selection of Robotics System	National Conference on Recent Trends in Mechatronics Nanotechnology and Robotics(RTMNR) India	274-279	2006
Dev Anand, M; Selvaraj, T; Kumanan, S; Gunavathi, N	Tolerance Optimization of Robot Kinematic Parameters Using Taguchi Method	National Conference on Optimization Techniques in Engineering Sciences and Technologies (OPTTEST)	250	2006
Dev Anand, M; Selvaraj, T; Kumanan, S; Austin Johnny, M	A FRIEND Functional Robot System with User Friendly for Assisting Handicapped People	National Conference on Recent Trends in Engineering and Application Computational Technologies (REACT), India	27- 31	2006
Deva Anand, M; Selvaraj, T; Kumanan,S; Mago Stalany, M	Tolerance Specification of Robot Kinematic Parameters Using Genetic Algorithms	National Conference on Recent Advances in Product Design, Materials Technology and Manufacturing Systems RAPMATS	Abstr act	2006
Kumanan, S	Modeling with Petrinets	National conference on modeling and Simulation in Manufacturing	IN 13- IN18	2006
Christu Paul, R; Asokan, P; Kumanan, S; Vijayakumar,R,L	A Genetic Algorithm approach for Machine Layout Design	National conference on recent advances in Product Design, Materials Technology and Manufacturing Systems RAPMATS	41-45	2006
Kumar,K;Prasanna Venkatesan, S; Kumanan, S	Optimization of Facility location for operational logistics using simulated annealing	11th Annual Conference of society of Operations Management India	DC II 10	2007
Thillaivanan, A; Asokan,P; Kumanan, S; Srinivasan, K,N	Determination of Optimal Cutting Parameters for the EDM Process using Artificial Neural Network and Genetic Algorithm	International conference on recent advances in Materials and Processing	ID 12.05 Page 67	2006
Jesuthanam, C, P; Samgopiraj Yadav, C, V; Kumanan, S	An Experimental analysis to determine the influence of material hardness and cutting parameters on surface roughness	International conference on advanced materials and composites	442-447	2007
Jesudhanam, C,P; Kumanan, S	Neural Networks and Fuzzy logic in modeling the machining process	International Conference on Trends in Industrial Measurements and automation	257-261	2007

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Authors	Title	Conference Theme & Venue	No.	Year
Edwin Raja Dhas, J; Kumanan, S	Neurofuzzy approach for welding quality prediction	International Conference on Trends in Industrial Measurements and automation	362-366	2007
Dev Anand, M; Selvaraj, T; Kumanan, S	Parameter Identification of Robot Arm using Artificial Neural Networks	National Conference on Computational Intelligence	001 - 010	2007
Ashutosh Hengle; Joseph Amalesh; Rapinder Sawhney;Somasundaram Kumanan	Estimating Product Development Time Using Extended PERT Model	Annual Conference of IIE 2007 Nashville, USA.	1575-1580	2007
Yuerong Chen; Xueping Li; Somasundaram Kumanan	Job Completion Time Variance Minimization on Identical Parallel Machines	Annual Conference of IIE 2007 Nashville, USA. (Adjudged as BEST PAPER )	974-979	2007
Ilankumaran, M ; Kumanan, S	Decision making in maintenance using Fuzzy logic	National Conference on recent developments in production and operations management	63-66	2007
Shajahan, C, J; Subhramanyan Embranthiri, E; Kumanan, S	A Simulated Annealing Based Optimization Frame Work For Estimating Product Development Iterative Time	Proceedings on National conference on Factory Automation, Robotics and Soft Computing	315-319	2007
Edwin Raja Dhas, J; Kumanan, S	Prediction Of Weld Bead Width Using Artificial Neural Networks	Proceedings on National conference on Factory Automation, Robotics and Soft Computing	382-385	2007
Satheesh kumar, R, M; Asokan, P; Kumanan,S	Artificial Immune System approach to solve Quadratic Assignment Formulation of Multi-row Layout Problem in FMS	International Conference on Advances in Manufacturing Technology, (ICAMT)	1 to 8	2008
Kumanan,S ; Bobin Cherian Jos	Selection of partners in extended enterprise using a hybrid MADM method	International conference on Fascinating advancement in Mechanical Engineering	169-176	2008
Kumanan, S ; Bobin Cherian Jos, S	Application of Artificial Immune Systems for the selection of partner companies in Virtual enterprise	Second International and 23rd AIMTDR conference	1081-1086	2008
Ahilan, C; Kumanan,S; Tamilselvan, R; Sivakumaran, N	Multiobjective optimization of CNC turning process using Grey based Taguchi Method	Second International and 23rd AIMTDR conference	849-854	2008

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Authors	Title	Conference Theme & Venue	No.	Year
Satheesh Kumar, R,M; Asokan, P; Kumanan, S	Artificial Immune System based algorithm for supply chain oriented facility layout design	6th International Conference on Supply Chain Management and Information Systems	704-712	2008
Prasanna Venkatesan, S; Kumanan, S	Decentralized Production Distribution Planning in Supply Chain using Intelligent Agents	6th International Conference on Supply Chain Management and Information Systems pages India	120-128	2008
Kumanan,S; Bobin Cherian Jos,S	Selection of Partners in virtual Enterprise using Sheep Flocks Heridity Algorithm	6th International Conference on Supply Chain Management and Information Systems pages India.	113-119	2008
Kumar, K; Kumanan, S	Competitive Facility location for Bidirectional distribution of Naval Logistics	International Conference on Logistics and supply chain management	848-854	2008
Prasanna Venkatesan, S ; Kumanan, S	Multi Objective Particle Swarm Optimization for distribution planning in Supply Chain Network	18th International Conference on Flexible automation and Intelligent Manufacturing Sweden.	574-581	2008
Kumanan, S ; Bobin Cherian Jos	Selection of Partner companies in extended enterprise	National Conference on Recent trends in Mechanical Engineering RTIME	178-182	2008
Udhayakumar, P; Kumanan, S	Optimizing tardiness of Job and Tool in a FMS using Particle Swarm Optimization algorithm	9th International Consortium of Students in Management Research, COSMAR	PP 1-10	2009
Udhayakumar, P ; Kumanan, S	Multi objective task scheduling of AGV in flexible manufacturing system using GA and PSO algorithm	International Conference on "Latest Trends in Simulation Modeling and Analysis COSMA	37-41	2009
Udhayakumar, P; Kumanan, S	Optimizing tardiness of job and tool in a FMS using Genetic algorithm	International Conference on "Latest Trends in Simulation Modeling and Analysis COSMA	15-18	2009
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Ahilan, C; Kumanan, S; Sivakumaran, N	Design and implementation of fuzzy logic controller for an air conditioner with energy saving	Seventh International conference on sustainable manufacturing	72-77	2009
Edwin Raja Dhas, J; Kumanan, S	Neural Network Modeling of Submerged Arc Welding	National conference on Recent Development in Mechanical Engineering	RDM E 09	2009
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Authors	Title	Conference Theme & Venue	No.	Year
Sivakumaran, N	power consumption and surface roughness for CNC turning of AISI304	and Industrial Engineering, CPIE, NIT Jalandhar, India,	1-6	
Kumanan, S Suresh, R	Supply Chain Performance evaluation using DEA/TOPSIS model	International conference on Flexible Automation and Intelligent Manufacturing California USA	464-471	2010
Kumanan, S ; Ilangkumaran, M	Fuzzy VIKOR approach for selecting an optimum maintenance strategy	International conference on Flexible Automation and Intelligent Manufacturing California USA	28-35	2010
Kumanan, S; Kumar, K ; Edwin Raja Dhas, J	Location selection An Integrated Particle Swarm Optimization with fuzzy clustering approach	International conference on recent advances in Mechanical Engineering	473-480	2010
Leo Kumar, S, P; Kumanan, S; Ahilan, C; Mohan kumar, R, S	Automation of blanking die design parameters selection using intelligent system	International conference on recent advances in Mechanical Engineering	578-580	2010
Kumanan Somasundaram;Edwin Raja Dhas, J	Prediction of Weld parameter based on weld geometry in SAW using intelligent decision making tool	International conference on recent advances in Mechanical Engineering	414-419	2010
Ilangkumaran, M; Kumanan, S	Selecting the best maintenance strategy using AHP and VIKOR approaches	International Conference on Advances in Industrial Engineering Applications	MC05 1-6	2010
Udhayakumar, P; Kumanan,S	Optimizing Tardiness of Job and Tool in a FMS using Genetic and Ant Colony Optimization Algorithm	International Conference on Advances in Industrial Engineering Applications	SH 07	2010
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Prasanna Venkatesan, S; Kumanan, S;	Supply chain Risk Prioritazation using a hybrid MCDM approach	International Conference on Manufacturing and Industrial Enginneering (ICMIE) Singapore	E0091	2012
Prasanna Venkatesan, S; Kumanan, S	Simulation Modeling for Supply Chain sourcing under risk	International Simulation Conference of India (ISCI) Mumbai	37	2012
Manikandan, N; Kumanan, S; Sathiyarayanan, C	Electrochemical Deburring of automobile components- A study	XXVIII National Convention of Mechanical engineers IE India Coimbatore C40-C43 2012	C40-C43	2012
Leo kumar, S, P; Jerald,	Manufacturing Application of Micromachining for	XXVIII National Convention of Mechanical	C67-	2012

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Authors	Title	Conference Theme & Venue	No.	Year
J; Kumanan, S	automobile components	engineers IE India Coimbatore	C70	
Leo Kumar, S, P; Jerald, J; Kumanan, S	An Expert System for Cutting Tool Selection for Micromachining Processes	International Conference on Precision, Meso, Micro and Nano Engineering COPEN 08	133-137	2013
Leo Kumar, S, P; Jerald, J; Kumanan, S; Aniket Nargundkar	Experimental Investigation of Micro End Milling of Cast Grade Virgin PMMA	1st National Conference on Micro and Nano Fabrication (Mnf -2013) at CMTI, Banglore, India	321-324	2013
Leo Kumar, S, P; Jerald, J; Kumanan, S; Shashank Pansari	Experimental Investigation of Micro Drilling of C360 Brass	1st National Conference on Micro and Nano Fabrication (Mnf -2013) at CMTI, Banglore, India	325-328	2013
Leo Kumar, S, P; Jerald, J; Kumanan, S	Automatic Feature Extraction and CNC Code Generation in a CAPP System for Micromachining	International Conference on Advances in Materials and Manufacturing Engineering (ICAMME-14), NITK, Surathkal	1987-1997	2014
Kumanan, S; Manikandan, N; Sathiyarayanan, C	Investigations of process parameters of Electrochemical machining of titanium (Ti6Al4V) alloy using Grey Relational Analysis	International Colloquium on Materials, Manufacturing and Metrology (ICMMM-14), IIT Madras	305-306	2014
Kumanan, S ; Jose, G	Selection of technician in field service management using a mathematical model	Twenty Ninth National Convention of Production Engineers and National seminar on Green Manufacturing Strategies	NCPE /2014/ 016	2014
Kumanan, S; Silambarasan, R	Influence of post weld heat treatment on mechanical properties of modified 9Cr-1Mo-V steel	Twenty Ninth National Convention of Production Engineers and National seminar on Green Manufacturing Strategies	NCPE /2014/ 022	2014
Kumanan, S; Vaghela, S, J	Finite Element Analysis of submerged arc welding	Twenty Ninth National Convention of Production Engineers and National seminar on Green Manufacturing Strategies	NCPE /2014/ 021	2014
N.Manikandan, S.Kumanan, C.Sathiyarayanan	Prediction of Metal Removal Rate in Electrochemical Machining using Multiple Regression Analysis	Proceedings of International Conference on Advances in Production and Industrial Engineering (INCAPIE_2015), NIT Trichy	250-256	2015
Leo Kumar, S.P., J. Jerald and S. Kumanan	Mathematical Modeling of Micro End Milling Process and Establishing Parameters to Develop A CAPP System,	Proceedings of International Conference on Advances in Production and Industrial Engineering (INCAPIE_2015), NIT Trichy	486-492	2015
Anish Nair, S. Kumanan	Newer Materials for Supercritical Power Plant Components-A Manufacturability study	Proceedings of International Conference on Advances in Production and Industrial	326-332	2015

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Authors	Title	Conference Theme & Venue	No.	Year
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Manish Patil, S. Kumanan	Facility Lay out Optimization using Linear and Non-Linear Mixed Integer Programming	Proceedings of International Conference on Advances in Production and Industrial Engineering(INCAPIE_2015),NIT Trichy	570-576	2015
Shantosh Shivhare, G. Jegan Jose, S Kumanan	Field Service Scheduling using Mixed Integer Programming	Proceedings of International Conference on Advances in Production and Industrial Engineering(INCAPIE_2015),NIT Trichy	639-645	2015
Pranav Sankpal, A Andrew, S Kumanan	Maintenance strategies Selection using Fuzzy FMEA and Integer Programming	Proceedings of International Conference on Advances in Production and Industrial Engineering(INCAPIE_2015),NIT Trichy	503-509	2015
G. Jegan Jose, S Kumanan, S Prasanna Venkatesan	Optimize Field Service Management through Analytics	Proceedings of International Conference on Advances in Production and Industrial Engineering(INCAPIE_2015),NIT Trichy	529-535	2015
S. J. Vaghela, S Kumanan	Prediction of Temperature Distribution in Butt welded Joint using Finite Element Analysis	Proceedings of International Conference on Advances in Production and Industrial Engineering(INCAPIE_2015),NIT Trichy	228-234	2015

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Author(s)	Title of Book	Publisher	Year	ISBN
Dr. S Kumanan et al	Proceedings of international conference on advances in production and industrial engineering	NIT Trichy	2015	NA
Dr S Kumanan et al.	Proceedings of 6 <sup>th</sup> International conference on Supply Chain Management and Information Systems	Macmillan	2008	10:0230-63688-8