

Curriculum Vitae

**Prof. (Mrs.) Dhanalakshmi K.,
Associate Professor,
Department of Instrumentation and Control Engineering,
National Institute of Technology, Tiruchirappalli**



Brief Profile:

Dhanalakshmi K. graduated from Alagappa Chettiar College of Engineering and Technology, Karaikudi, completed her M.E. from Regional Engineering College, Tiruchirappalli and Ph.D. from National Institute of Technology, Tiruchirappalli, all under Electrical Sciences. Presently she is an Associate Professor in the Department of Instrumentation and Control Engineering, National Institute of Technology (NIT), Tiruchirappalli. She was the Associate Dean (Academic Programmes) during 2012 - 2015. Dhanalakshmi was a faculty member at Shanmugha College of Engineering, Thanjavur (now SASTRA) and at the Periyar Maniammai College of Technology for Women, Thanjavur (now Periyar Maniammai University), before joining NIT, Trichy (then REC Trichy).

Dhanalakshmi's area of interest include control systems, smart materials, adaptive structures and intelligent systems. Her major contribution is on design and evaluation of Shape Memory Alloy (SMA) based systems. She has done a sensible research work in the area of SMA based system design for instrumentation and control. She has published over 45 research papers in International Journals and Conferences of repute and has successfully completed few research projects. She is also a reviewer of reputed journals and books in her field.

When Dhanalakshmi has served as an Associate Dean (Academic Programmes) she took control of the EDP section and made a remarkable contribution. She is the co-ordinator of social clubs and an active member in administrative committees, thereby contributing to the campus in addition to the administration.

Dhanalakshmi has set up the Smart Materials and Systems Laboratory at NIT Tiruchirappalli, which contributes to research in terms of research publications, MoUs and, opportunities to internships and continuous education. A batch of undergraduate students obtained the Sonata Best Project Award for B.Tech. project under her guidance in April 2015, the poster paper titled 'Angular Trajectory Tracking using Antagonistic Shape Memory Alloy Actuators' was awarded the best paper at the IEEE 6th International Conference on Sensing Technology ICST 2012, Kolkata, December 2012. Her first research scholar was selected as a student member of NIT Tiruchirappalli from the National Innovation Clubs at institutes of higher learning to participate in the Festival of Innovations at President's Estate, Rashtrapati Bhavan, New Delhi on March, 2015. Dhanalakshmi has focused for Industry - Academia interaction and she has been instrumental in establishing an MoU with Continental Automotive Components India Pvt. Ltd., Bangalore during November 2014.

Dhanalakshmi has been keen to participate regularly in continuous education programmes and attend international conferences of high repute. She has traveled to countries abroad for academic exposure and to present papers in prestigious conferences and has interacted with technical experts from all over the world. She holds membership in professional societies like ISTE, IEEE, ISSS, IEI (I), ISoI, SSI and SPIE.

Dhanalakshmi has received an award of facilitator certification in Human Resource Management on August 1999 and has conducted training sessions for students.

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1.	Name	DHANALAKSHMI K.
2.	Designation	ASSOCIATE PROFESSOR
3.	Office Address	K. DHANALAKSHMI ASSOCIATE PROFESSOR DEPT. OF INSTRUMENTATION AND CONTROL ENGG. NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI 620015
4.	Telephone Mobile	+91 431 2503360 +91 9443858456
5.	Email (Primary) Email (Secondary)	dhanlak@nitt.edu kdhanlak@gmail.com
6.	Field(s) of Specialization	Control Systems, Smart Materials and Structures, Sensors and Actuators in Mechatronics Design and Applications

7. Employment Profile

From	To	Name of the University	Job Title and responsibilities
1 July 2012	till date	National Institute of Technology, Tiruchirappalli.	Associate Professor, Dept. of Instrumentation and Control Engg. Teaching, Research, Training
Oct 2012	Nov 2015	National Institute of Technology, Tiruchirappalli.	Associate Dean, Academic Administrative
25 Sept. 2009	30 June 2012	National Institute of Technology, Tiruchirappalli.	Assistant Professor, Dept. of Instrumentation and Control Engg. Teaching, Research, Training, Administrative
1 July 2009	24 Sept. 2009	National Institute of Technology, Tiruchirappalli.	Lecturer (Selection Scale), Dept. of Instrumentation and Control Engg. Teaching, Research, Training
1 July 2004	30 June 2009	National Institute of Technology, Tiruchirappalli.	Lecturer (Senior Scale), Dept. of Instrumentation and Control Engg. Teaching, Research, Training
14 May 1999	30 June 2004	Regional Engineering College, Tiruchirappalli.	Lecturer, Dept. of Instrumentation and Control Engg. Teaching, Training
1 June 1995	13 May 1999	Shanmugha College of Engineering, Thanjavur [SASTRA University]	Lecturer Teaching, Training, Administrative
16 Aug. 1991	31 May 1995	Periyar Maniammai College of Technology for Women, Thanjavur [Periyar Maniammai University]	Lecturer Teaching, Training.

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

Examination	Board / University	Year	Division/ Grade	Discipline/Subjects
Ph.D.	National Institute of Technology, Tiruchirappalli	2009		Instrumentation and Control Engineering
M.E.	Regional Engineering College, Tiruchirappalli Bharathidasan University	1994	First	Power Systems Electrical and Electronics Engg.
B.E.	Alagappa Chettiar College of Engineering and Technology, Karaikudi Madurai Kamaraj University	1991	First with Distinction	Electrical and Electronics Engg.
H.Sc.	TamilNadu State Board	1987	First class (85.75 %)	PCMB
Matriculation	SSLC	1985	First class (81.09 %) School fourth rank	

9. Academic/Administrative Responsibilities within the University

Position	Department/Centre/Institution	From	To
Member, Implementation Committee and, System Requirement Specifications (SRS) Committee	Management Information System (MIS)	Oct. 2012	Till date
Associate Dean, Academic Programmes	National Institute of Technology, Tiruchirappalli	Oct. 2012	Nov. 2015
Faculty Co-ordinator, SPIC MACAY	National Institute of Technology, Tiruchirappalli	March 2013	Till date
Member, Programme Committee, Community Radio Service	National Institute of Technology, Tiruchirappalli	Nov. 2016	Till date
Member, Quarters Committee	National Institute of Technology, Tiruchirappalli	Nov. 2016	Till date
Member, Special Task Force	Centre of Excellence, Smart Systems and MEMS (S ² -MEMS)	March 2012	Till date
Faculty Advisor, Tamil Mandram	National Institute of Technology, Tiruchirappalli	2006	2016
Member Secretary, Degree Certificate Design Committee	Office of the Dean (Academic)	2014	2015
Member Secretary, Uniform Curriculum Framing Committee AND Board of Studies, First year B.Tech.	Office of the Dean (Academic)	2012 2013	2013 2014
Faculty in charge, Modelling and Simulation Lab.	Instrumentation and Control Engg. Dept.	2007	Till date
Faculty in charge, Dept. Computer Center	Instrumentation and Control Engg. Dept.	2002	2005
Member, DPEC, M.Tech. (PCI)	Chemical Engg.	2007	2009
Physical Stock Verification Officer	ECE Dept. Arch. Dept.	2003 2001	2006 2002
Coordinator, Children's Club of NITT	NIT, Tiruchirappalli	2005	Till date

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10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member, Electrical & Electronics Engg. Question Paper Passing Board	Anna University, Chennai	2001	2008
Expert, Academic Audit	PSG College of Tech., Coimbatore	Nov. 2014	May 2016
Member, Inspection Committee	Anna University, Chennai	March/April 2014	
Reviewer, Technical Programme Committee	IEEE journals and Conferences ELSEVIER, SAGE journals	2010	Till date
Examiner Ph.D., M.E., B.E.	Anna University, Chennai Bharathidasan University Madras University	2000	Till date

11. Awards, Associateships etc.

Year	Name of the Award	Awarding Organization
2012	Best Poster Paper	IEEE IMS International Conference on Sensing Technology, ICST 2012
2015	Best B.Tech. Project in ICT and Electronics	Sonata Software Ltd., Bangalore

12. Fellowships

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

13. Details of Academic Work

(i) Curriculum Development

Sl. No.	Curriculum development
1	Technical Committee Member, Conclave on Academic Reforms (CAR), 28 & 29 April 2015 Organised the pre-senate workshop for Flexible Curriculum Design and Academic Flexibility, 27 April 2015
2	Member Secretary, Uniform Curriculum framing Committee 2013 Guidelines were framed and recommended for the Uniform Curriculum for all the programmes run by the institute, further the revised curriculum with syllabus was collected, verified and updated in the website.
3	Member Secretary, Board of Studies, First year B.Tech. for AY 2013-14 Co-ordinated to invite experts, convene the BoS and finalise the syllabus w.r.t. the guidelines for the uniform curriculum, verified and updated in the website.
4	Introduction of elective course on Smart Materials and Systems Developed the course curriculum for the B Tech (ICE) courses on electric circuits, electronics and control systems – theory and lab.

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(ii) Courses taught at Postgraduate and Undergraduate levels

Undergraduate Level	Automatic Control System, Modern Control Systems, Digital Control Systems, Instrumentation Systems, Smart Materials and Systems, Digital Electronics/Techniques, Power Plant Instrumentation and Control, Electric Circuits, Power Electronics, Instrumentation Systems, Linear Integrated Circuits, Electrical Machines, Field Theory, Transmission and Distribution.
Postgraduate Level	Modern Control Theory Sensors and Transducers Design and Control of Smart Systems Solid State DC and AC drives Systems Theory

(iii) Projects guided at Postgraduate level

M.Sc. (Applied Electronics)

Sl. No.	Title of the project	Name of the student	Year
1	Characterization of Shape memory alloys	Bhagyaraj Singh	2006-2007

M.Tech. (PCI)

Sl. No.	Title of the project	Name of the student	Year
1	Modeling and control of Electro-rheological fluid actuated structures	C. Ramesh	2001-2002
2	Design of Generalized Predictive Control using State Space Approach	D. Ezhilarasi	2002-2003
3	Design and Control of Power System Stabilizer	D. Arivanandi	May 2004
4	Vibration control of flexible cantilever beam using shape memory alloy as actuator	S. Anitha	Dec 2004
5	Experimental study of Shape Memory Alloy as an actuator	C. Chandravathanam	Dec 2005
6	Serial data transmission using RS-232 (BHEL-T)	G. Kalpana	May 2006
7	Vibration control of SMA actuated beam using modern control algorithms	C. Chandravathanam	May 2007
8	Study of vibration control of a smart beam using SMA actuators	K. Rameshkumar	Dec 2008
9	Vibration control of a smart beam using SMA actuator	K. Rameshkumar	May 2009
10	Design and Development of high voltage power supply for ER damper	V. V. Surendra Atchyam	Dec 2010
11	Design of SMA actuated structural control system	Rajesh Basawaraja	Dec2010

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12	Design and control of SMA actuated structure	Rajesh Basawaraja	May 2011
13	Design and Development of power supply for ER damper	V. V. Surendra Atchyam	May 2011
14	Design and Development of SMA actuated vibration control system	P. Suresh Kumar	Dec 2011
15	Design and development of electronic control system for SMA actuated structure	P. Suresh Kumar	May 2012
16	Design and fabrication of weight measurement instrument by using SMA wire	Maruthi Prasad	Dec 2012
17	Experimental evaluation of weight measurement instrument by using SMA wire	Maruthi Prasad	May 2013
18	Design of virtual welding power source (BHEL-T)	Supriya Bhadra	Dec 2013
19	Design of SMA based weight measurement system	Supriya Bhadra	May 2014
20	Application of self-sensing methods to SMA actuated systems	Rajkumar K K	Dec 2014
21	Design and control of modified compliant differential SMA actuator	Rajkumar K K	May 2015
22	Modelling and simulation of fuel Injector for Common Rail Diesel Engine (Bosch, CBE)	Rushikesh Jadhav	Dec 2016

(iv) Other contribution(s)

Established Interaction with Academia & Industry

1.	Undergone Training in Foreign University (under TEQIP)		
	Smart Structures and Systems Laboratory, Department of Mechanical Engineering, Inha University, Inchon 402-751, South Korea	Prof. S. B. Choi	One month 19-11-2007 to 18-12-2007
2.	Established MoU with Continental Automotive Components (India) Pvt. Ltd., Bangalore		

14. Details of Major R&D Projects

Sl. No.	Title of Project	Funding Agency	Cost in Lakhs	Duration		Status Ongoing/ Completed
				From	To	
1.	Experimental investigation of SMA actuated flexible structure under piecewise output feedback control	ISRO - RESPOND	3.11	2008	2009	Completed
2.	Design of Electro-Rheological Damper based suspension control system	Aeronautics R & D Board (ARDB) - Systems/Systems Engg. Panel	18.38	2009	2011	Completed

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15. Number of PhDs guided: 2

Sl. No.	Name of the PhD Scholar	Title of PhD Thesis	Role	Status
1.	Senthilkumar Palaniswamy	Position Control of Shape Memory Alloy Wire Actuators using Modulated Adaptive Controllers	Co Supervisor	Awarded 2013
2.	D Josephine Selvarani Ruth	Realization of shape memory alloy wire as shared sensor and actuator for feedback and haptic control applications	Supervisor	Awarded 2015
3.	M Banu Sundareswari	Investigations on optimal placement of SMA actuator	Supervisor	Ongoing
4.	D Nalini	Design and development of linear VSAs using SMA	Supervisor	Ongoing
5.	G Thenmozhi	Topology optimization of SMA actuated/sensed smart structures	Supervisor	Ongoing
6.	B. Bhagoji Sul	Design and development of rotary VSAs using SMA	Supervisor	Ongoing
7.	Appikonda M. Durgakumar	Design and development of inductive transducers with smart materials	Supervisor	Ongoing
8.	Geetha M.	Design and development of digital and logic functions with smart materials	Supervisor	Ongoing
9.	Vetriselvi V.	Design and development of bistable circuits with smart materials	Supervisor	Ongoing

Number of MS (by research) guided: 2

Sl. No.	Name of the MS Scholar	Title of MS Thesis	Role	Status
1.	S Krishna Chaitanya	Design of shape memory alloy actuated grippers and investigation of tracking control	Supervisor	Awarded 2013
2.	S Sunjai Nakshatharan	Dynamic motion control using antagonistic shape memory alloy wire actuators	Supervisor	Awarded 2014

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

Date (s)	Title of Activity	Level of Event	Role	Event Organized by	Venue
28 and 29 April 2015	Conclave on Academic Reforms (CAR)	National conclave	Participant	NIT Trichy	NIT Trichy
8 – 12 March 2015	SPIE Smart Structures/NDE 2015	22 nd International Conference	Presenter	SPIE	San Diego, USA
13 th to 15 th March 2014	Advances in Control and Optimization of Dynamic Systems ACODS 2014	3 rd International Conference	Session Co-chair	IFAC	IIT Kanpur

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21 – 25 Jan. 2013	Variable Structure and Sliding Mode Control – Concept, Theory and Applications	International Workshop	Participant		IITB, Mumbai
28 th to 30 th August 2013	Multi-Conference on Systems and Control	7 th IEEE International Conference	Presenter	IEEE	International Convention Centre Hyderabad
9 and 10 May 2013	Perspectives on Curriculum	Workshop	Participant	NIT, Trichy	NIT, Trichy
11 and 12 Feb. 2013	Team Building and Effective Group Dynamics	Out Bound Experiential Learning	Attendee	Adventure Zone, Madhurantakam	Adventure Zone, Madhurantakam
5 th to 8 th Dec. 2012	Mechanics of Functional Materials and Structures ACMFMS 2012	3 rd Asian Conference	Session Co-chair	IIT Delhi	IIT, Delhi
4 th to 7 th January 2012	Smart Materials, Structures and Systems	6 th International Conference	Participant	ISSS	IISc, Bangalore
16 th to 18 th Nov. 2011	Understanding Design	National Workshop	Participant	Industry Program mes and Projects	National Institute of Design, Ahmedabad
1 st April 2011	Challenges of Futuristic Systems	National symposium	Participant	ISSS	IISc, Bangalore
26 – 30 July 2010	MEMS and its CAD tools	National workshop	Participant	NIT, Trichy	NIT, Trichy
18 – 23 January 2010	Mechatronics: Integrated Technologies for Intelligent Machines	National Workshop	Participant	CCE, IITM	IITM, Chennai
17 th December 2009	Polynomial Global Optimization and Constraint Propagation Techniques	Workshop	Participant	Prof. P. S. V. Nataraj, Systems and Control Engg, IITB	NIT, Trichy
28 July – 1 Aug. 2008	Advanced Optimal Control and Estimation	National Workshop	Participant	CCE, IISc	IISc, Bangalore
14 – 19 July 2008	Application of Lasers in Sensing & Measurements	National Workshop	Participant	CCE, IITM	IITM, Chennai
12 th to 14 th November 2008	Power Electronics NWPE 2008	National Workshop	Participant	The National Mission on Power Electronics Technology (NaMPET)	NIT, Trichy
24 th & 25 th Sept. 2008	Advanced Analog IC/VLSI Design	National Workshop	Participant		NIT, Trichy

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8th and 9th Aug. 2008	Right to Information ACT 2005 and Role of Information Officer	National Workshop	Participant	National Archives of India, RTI Cell, GoI, New Delhi	NIT, Trichy
31 st March and 1 st April 2008	CMOS-MEMS device Technology and the future	Lecture series	Participant	Prof. Hidekuni Takao, TUT, Japan.	NIT, Trichy
19 Nov. – 18 Dec. 2007	Smart Structures and Systems Laboratory	International Academic/Research training	Trainee	TEQIP	Inha University Incheon, South Korea
13 – 17 March 2007	Recent Trends in Processor Architecture	National STC	Participant	QIP – Dept. of CSE	NIT, Trichy
1 st and 2 nd February 2007	Finite Element Methods for Engineers	National Workshop	Participant	TEQIP Community Service	NIT, Trichy
4th January 2007	Nano-, Neuro-, Bio-, Info- Technologies, MEMS, NEMS and Neurosurgery	Pre - conference tutorial – International Conference	Participant	Dr. Vijay K Varadan. TIMA	NIT, Trichy
11 – 16 December 2006	MEMS and Smart Structures	National Workshop	Participant	ISSS	IISc, Bangalore
19 th and 20 th December 2006	Control of Unstable Systems	National Workshop	Participant	Chemical Engg. Dept.	NIT, Trichy
25 th November 2006	Instrumental Methods of Thermal Analysis and Data Interpretation	Training programme	Participant	TEQIP Community Service	NIT, Trichy
5 – 9 July 2004	Recent Trends in Power Electronics	National QIP	Participant	AICTE CCE	IISc, Bangalore
22 December 2004	Recent Advances in Smart Materials, Structures and Systems	International Workshop	Participant	ISSS	IISc, Bangalore
23 – 27 Dec. 2003	LabVIEW Basics I and II	National Training Course	Trainee	National Instruments Bangalore	NI, Bangalore
8 – 29 November 2002	System Modelling and Simulation	National STTP	Participant	AICTE - ISTE	Pondicherry Engineering College, Pondicherry
13 – 24 May 2002	Advanced Topics in Linear Systems Theory	National QIP STC	Participant	Electrical Engg. Dept.	IITB, Mumbai

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August 1999	Facilitator Certification Course in HRD	National certification	Participant / facilitator	CLHRD, Mangalore	Shanmugha College of Engg., Thanjavur
4 – 15 May 1998	Industrial Internship Programme - Engineering/Machine Tool Centre		Intern	Shanmugha College of Engg., Thanjavur	Lucas-TVS, Chennai
20 Sept. 1998	Building a more humane and enlightened society	Principals' Conference	Participant	Project CARE	Shanmugha College of Engg., Thanjavur
17 – 22 June 1996	Power Electronics in Energy Systems	National STTP	Participant	AICTE	REC, Trichy
12 – 25 May 1995	Fault Tolerant Control Systems	National Summer school	Participant	ISTE	Anna University, Chennai

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

Title of Activity	Level of Event	Date (s)	Role	Venue
Conclave on Academic Reforms (CAR)	National Conclave	28 th and 29 th April 2015	Technical Committee Member	NIT, Trichy
Smart Materials and Systems	National FDP	11 to 15 June 2012	Coordinator	NIT, Trichy
Instrumentation and Control, ICECON '09	4th National Conference	7 th and 8 th December 2009	Organizing Secretary	NIT, Trichy
Wireless Sensor Networks	National workshop	6 th December 2009	Organizer	NIT, Trichy
Design and Development of Laboratory experiments for UG Electronics and Instrumentation, and Instrumentation and Control Engineering branches	Continuing Education Programme (CEP)	11 th to 15 th June 2001	Coordinator	NIT, Trichy

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18. Invited Talks delivered

Topic	Date	Inviting Organisation
Concept of Stability in Control Systems	24 Aug 2016	K Ramakrishnan College of Engineering, Tiruchirappalli
Shape memory alloys - FDP Smart materials and systems	6 Jan 2015	NIT, Tiruchirappalli
Smart materials and engineering applications - Inauguration of EEE Association	17 July 2014	Oxford Engineering College, Tiruchirappalli
Concept of Stability in Control Systems	3 April 2014	K Ramakrishnan College of Engineering, Tiruchirappalli
Smart materials for Engineering Applications: An overview - National Conference on Advances in Electrical Engineering	15 March 2013	MAM College of Engineering, Tiruchirappalli
Applications of DC motors and drives	12 Oct 2012	VIT Chennai
Shape Memory Alloys for Civil Engineering Applications	20 Sept 2012	MAM College of Engineering, Tiruchirappalli
Process Control	15 February 2001	MAM College of Engineering, Tiruchirappalli

19. Membership of Learned Societies

Type of Membership	Organization	Membership No. with date
Life Member	Indian Society for Technical Education (ISTE)	LM 19430 (1994)
Member	Institute of Engineers, India IE(I)	M-139554-2 (2009)
Life Member	Institute for Smart Structures and Systems (ISSS)	LM 146 (2006)
Life Member	Instrument Society of India (ISoI)	LM No. 1771 (2009)
Life Member	Systems Society of India (SSI)	LM No. 31626 (2011)
Member	Institute of Electrical and Electronics Engineers (IEEE)	92707123 (2013)
Member	Society of Photo-Optical Instrumentation Engineers (SPIE)	3655676 (2014)

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20. Academic Foreign Visits

Country	Duration of Visit	Programme
South Korea	19 Nov. to 18 Dec. 2007	Faculty training under TEQIP: Smart Structures and Systems Laboratory, Department of Mechanical Engineering at Inha University, Incheon
United States of America	8-12 March 2015	22nd International Symposium on Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring SPIE - 15, San Diego, California

21. Publications as on 1 Dec. 2016

(A) Refereed Research Journals

Sl. No.	Author(s)	Title of Paper	Journal	Volume (No.), Year, Page numbers
1.	D. Josephine Selvarani Ruth, K. Dhanalakshmi	Self-sensing SMA wire for servo actuation	<i>Mechanical Systems and Signal Processing</i>	83, 2017, 36-52.
2	K. Dhanalakshmi M. Umamathy and D. Ezhilarasi	SMA Actuated Structural Control with Discrete Time Sliding Mode using Multirate Output Feedback	<i>Journal of Vibration and Control</i>	22(5), 2016, 1338-1357.
3	D. Josephine Selvarani Ruth, K. Dhanalakshmi	Shape memory alloy with bi-functionality in master system to control a slave	<i>Sensors and Actuators A: Physical</i>	238, 2016, 351-360.
4	S. Sunjai Nakshatharan, K. Dhanalakshmi and D. Josephine Selvarani Ruth	Effect of stress over bandwidth of Antagonistic Shape Memory Alloy Actuators from a control perspective	<i>Journal of Intelligent Material Systems and Structures</i>	27(2), 2016, 153-165.
5	S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth, K. Dhanalakshmi	Dynamic stabilization and rapid motion control system driven by antagonistic shape memory alloy actuators	<i>Journal of Vibration and Control</i>	21(16), 2015, 3189-3204.
6	S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth, K. Dhanalakshmi	Fuzzy based sliding surface for shape memory alloy wire actuated classical super-articulated control system	<i>Applied Soft Computing</i>	32, 2015, 580-589.

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7	D. Josephine Selvarani Ruth, <i>K. Dhanalakshmi</i> and S. Sunjai Nakshatharan	Bidirectional angular control of an integrated sensor/actuator shape memory alloy based system	<i>Measurement</i>	69, 2015, 210-221.
8	D. Josephine Selvarani Ruth, <i>K. Dhanalakshmi</i> and S. Sunjai Nakshatharan	Interrogation of undersensing for an underactuated dynamical system	<i>IEEE Sensors Journal</i>	15(4), 2015, 2203-2211.
9	<i>K. Dhanalakshmi</i> M. Umopathy and D. Ezhilarasi	Sliding Mode Control of SMA Actuated Structures for Vibration Control	<i>International Journal of Modelling, Identification and Control</i>	23(2), 2015, 121-130.
10	S. Sunjai Nakshatharan, <i>K. Dhanalakshmi</i> and D. Josephine Selvarani Ruth	Servo control of an under actuated system using antagonistic shape memory alloy	<i>Smart Structures and Systems</i>	14 (4), 2014, 643-658.
11	S. Krishna Chaitanya, <i>K. Dhanalakshmi</i>	Design and investigation of a shape memory alloy actuated gripper	<i>Smart Structures and Systems</i>	14 (4), 2014, 541-558.
12	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and <i>K. Dhanalakshmi</i>	Differential resistance feedback control of a self-sensing shape memory alloy actuated system	<i>ISA Transactions</i>	53 (2), 2014, 289-297.
13	P Senthilkumar, M Umopathy, <i>K. Dhanalakshmi</i>	Modulated Adaptive Fuzzy controller for position control of SMA wire actuator	<i>Journal of Intelligent and Fuzzy Systems</i>	27 (1), 2014, 9-18.
14	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and <i>K. Dhanalakshmi</i>	Auto-adaptive control of a one-joint arm direct driven by antagonistic shape memory alloy actuated wires	<i>International Journal of Smart Sensing and Intelligent Systems</i>	6 (3), 2013, 833-849.
15	<i>K. Dhanalakshmi</i> M. Umopathy, D. Ezhilarasi and B. Bandyopadhyay	Design and implementation of fast output sampling feedback control for shape memory alloy actuated structures	<i>Smart Structures and Systems</i>	8 (4), 2011, 367-384.

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16	<i>K. Dhanalakshmi</i> M. Umaphathy, D Ezhilarasi and M Marimuthu	Experimental Evaluation of Periodic Output Feedback Control for SMA Actuated Structures	<i>International Journal of Advanced Mechatronic Systems</i>	2 (5/6), 2010, 330–341.
17	<i>K. Dhanalakshmi</i> Aditya Avinash, M. Umaphathy and M Marimuthu	Experimental Study on Vibration Control of Shape Memory Alloy Actuated Flexible Beam	<i>International Journal of Smart Sensing and Intelligent Systems</i>	3 (2), 2010, 156–174.
18	<i>K. Dhanalakshmi</i> and M. Umaphathy	Active Vibration Control of SMA Actuated Structures using Fast Output Sampling Based Sliding Mode Control	<i>Instrumentation Science and Technology</i>	36 (2), 2008, 180–193.
19	<i>K. Dhanalakshmi</i> M. Umaphathy, D. Ezhilarasi and C. Chandravathanam	Control of Shape Memory Alloy Actuated Beam using Periodic Output Feedback Control	<i>The Mediterranean Journal of Measurement and Control</i>	4 (1), 2008, 8–14.

(B) Conferences/Workshops/Symposia Proceedings

Research Publications in International Conferences						
Sl. No.	Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page no.s	Venue	Year
1.	Nalini D., Josephine Selvarani Ruth D., <i>Dhanalakshmi K</i>	An investigation on the stiffness variation in a synergistically configured SMA actuator	<i>13th International IEEE India Conference INDICON 2016</i>	16-18	<i>IISc Bangalore</i>	Dec. 2016
2.	Nalini D., Josephine Selvarani Ruth D., <i>Dhanalakshmi K</i>	Design of a Variable Stiffness Actuator using Shape Memory Alloy Wire	<i>7th IEEE Power India International Conference PIICON 2016</i>	25-27	<i>Govt. Engineering College Bikaner, Rajasthan</i>	Nov. 2016.
3.	Akhil Challa, Pediredla Vijay Kumar, Voona Kushal, <i>Dhanalakshmi K, D</i> Josephine S Ruth	A Variable Stiffness Actuator using SMA	<i>IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems</i>	4-6	<i>DTU Delhi</i>	July. 2016
4.	S. Krishna Chaitanya and <i>K. Dhanalakshmi</i>	Design and Investigation of a Linear Smart Actuator	<i>22nd SPIE International Symposium on Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring</i>	8–12	<i>San Diego, California</i>	March 2015

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5.	S. Krishna Chaitanya and K. Dhanalakshmi	Design and control of shape memory alloy actuated grippers	<i>IFAC 3rd International Conference on Advances in Control and Optimization of Dynamical Systems ACODS 2014,</i>	400–407	<i>IIT Kanpur</i>	15 March 2014
6.	S. Krishna Chaitanya and K. Dhanalakshmi	Control of Shape Memory Alloy Actuated Gripper using Pulse Width Modulation	<i>IFAC 3rd International Conference on Advances in Control and Optimization of Dynamical Systems ACODS 2014</i>	408–413	<i>IIT Kanpur</i>	March 2014
7.	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and K. Dhanalakshmi	Prospective self-sensing actuator for stabilised control: beam balancing ball driven by shape memory alloy	<i>IFAC 3rd International Conference on Advances in Control and Optimization of Dynamical Systems ACODS 2014</i>	577–584	<i>IIT Kanpur</i>	March 2014
8.	S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth and K. Dhanalakshmi	Design and experimental evaluation of higher order sliding mode control for vibration suppression of shape memory alloy actuated structure	<i>IFAC 3rd International Conference on Advances in Control and Optimization of Dynamical Systems ACODS 2014</i>	1061 – 1066	<i>IIT Kanpur</i>	March 2014
9.	S. Krishna Chaitanya and K. Dhanalakshmi	Design of a precise tracking shape memory alloy wire actuated gripper	<i>9th International Conference on Intelligent Unmanned Systems (ICIUS)</i>		<i>Jaipur</i>	Sept 2013
10	M. Banu Sundareswari, K. Dhanalakshmi, S. Sunjai Nakshatharan and D. Josephine Selvarani Ruth	Optimal design of PID controller for SMA actuated	<i>9th International Conference on Intelligent Unmanned Systems (ICIUS)</i>		<i>Jaipur</i>	Sept 2013
11	S. Krishna Chaitanya and K. Dhanalakshmi	Demonstration of Self-Sensing Shape Memory Alloy Actuated Gripper	<i>7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Symposium on Intelligent Control (ISIC)</i>	218–222.	<i>Hyderabad</i>	August 2013

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12	Chaitanya and <i>K. Dhanalakshmi</i>	Control of Shape Memory Alloy Actuated Gripper using Sliding Mode Control	<i>7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Conference on Control Applications (CCA)</i>	1247 – 1252	<i>Hyderabad</i>	August 2013
13	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and <i>K. Dhanalakshmi</i>	Auto-sensing Antagonistic Shape Memory Alloy Wire Actuated Manipulator	<i>7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Conference on Control Applications (CCA)</i>	1253 – 1258	<i>Hyderabad</i>	August 2013
14	S. Krishna Chaitanya and <i>K. Dhanalakshmi</i>	Position control of shape memory alloy actuated gripper	<i>6th IEEE International Conference on Sensing Technology ICST 2012</i>	359– 364	<i>Kolkata</i>	Dec 2012
15	S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth and <i>K. Dhanalakshmi</i>	Design based Active Vibration Control of a Flexible Structure using Shape Memory Alloy Wire Actuators	<i>6th IEEE International Conference on Sensing Technology ICST 2012</i>	476– 480	<i>Kolkata</i>	Dec 2012
16	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and <i>K. Dhanalakshmi</i>	Angular Trajectory Tracking using Antagonistic Shape Memory Alloy Actuators	<i>6th IEEE International Conference on Sensing Technology ICST 2012</i>	757– 762	<i>Kolkata</i>	Dec 2012
17	S. Krishna Chaitanya and <i>K. Dhanalakshmi</i>	Design, Development and Investigation of Novel smart Grippers driven by NiTi fibers	<i>3rd Asian Conference on Mechanics of Functional Materials and Structures ACMFMS12</i>	75– 78	<i>IITD Delhi</i>	Dec 2012
18	S. Sunjai Nakshatharan, <i>K. Dhanalakshmi</i> and D. Josephine Selvarani Ruth	A new ball and beam system using shape memory alloy actuators	<i>3rd Asian Conference on Mechanics of Functional Materials and Structures ACMFMS12</i>	83– 86	<i>IITD Delhi</i>	Dec 2012
19	D. Josephine Selvarani Ruth, <i>K. Dhanalakshmi</i> and S. Sunjai Nakshatharan	Force Measurement using Self-Sensing Shape Memory Alloy	<i>3rd Asian Conference on Mechanics of Functional Materials and Structures ACMFMS12</i>	55– 58	<i>IITD Delhi</i>	Dec 2012

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20	<i>K. Dhanalakshmi, M. Umapathy and D. Ezhilarasi</i>	Variable structure control of shape memory alloy actuated flexible smart structure	<i>14th International Symposium on Smart Structures and Materials & Non-destructive Evaluation and Health Monitoring SPIE - 07</i>	18–23	<i>San Diego, California</i>	March 2007
21	<i>C. Chandravathanam, K. Dhanalakshmi and M. Umapathy</i>	Design and Characterization of Shape Memory Alloy Wire for Actuation in Smart Structure applications	<i>5th International Conference on Trends in Industrial Measurement and Automation TIMA - 2007</i>	202–207	<i>NIT, Tiruchirappalli</i>	Jan 2007
22	<i>A. Girija, M. Umapathy, B. Bandyopadhyay, G. Uma and K. Dhanalakshmi</i>	Discrete Time Sliding Mode Control for Piezoelectric Actuated Structures	<i>IEEE International Conference on Industrial Technology ICIT 2006</i>	1466 – 1471	<i>IIT, Kharagpur, Mumbai</i>	Dec 2006
23	<i>K. Dhanalakshmi, C. Chandravathanam M. Umapathy and B. Vasuki</i>	Vibration control of Shape Memory Alloy actuated structure using Fast Output Sampling Feedback Control	<i>2nd International Congress on Computational Mechanics and Simulation ICCMS - 06</i>	460–466	<i>IITG, India</i>	Dec 2006
24	<i>K. Dhanalakshmi, C. Chandravathanam M. Umapathy and D. Ezhilarasi</i>	Design of State Feedback Control for Vibration Suppression of Shape Memory Alloy actuated Flexible Beam	<i>Proceedings of 9th International Workshop on Smart Materials and Structures CANSMART - 2006,</i>	129–138	<i>Toronto, Ontario, Canada</i>	Oct 2006
25	<i>C. Ramesh, M. Umapathy, K. Dhanalakshmi and T. C. Manjunath</i>	Design of variable structure control for seismically excited vibration using electro-rheological fluids	<i>3rd International Conference on Smart Materials, Structures and Systems ISSS – SPIE 2002</i>	234–241	<i>IISc Bangalore</i>	Dec 2002
Research Publications in National Conferences						
26	<i>D. Ezhilarasi, G. Uma and K. Dhanalakshmi</i>	Design of Generalised Predictive Control for Smart Structure using State Space Approach	<i>National Conference on Process Identification, Control and Diagnostics</i>	134–141	<i>Annamalai University, Chidambaram</i>	Aug 2003
27	<i>C. Ramesh, M. Umapathy and K. Dhanalakshmi</i>	Control of seismically excited vibration using Electrorheological Fluids	<i>National Conference on Modern Trends in Electrical and Instrumentation Systems</i>	68–74	<i>GCT Coimbatore</i>	March 2002