

National Institute of Technology, Tiruchirappalli: CV of Dr.K.Murugesan

Curriculum Vitae



1. **Name:** Dr. K. Murugesan
2. **Designation:** Professor and Head
3. **Office Address:** Department of Mathematics,
National Institute of Technology,
Tiruchirappalli - 620 015
4. **Telephone (Direct) (Optional):** 0431-25003661
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5. **Email (Primary):** murugu@nitt.edu Email (Secondary) : kmnitt@yahoo.com
6. **Field(s) of Specialization:** Numerical Techniques, CNN & Image Processing

7. Employment Profile

Job Title	Employer	From	To
Professor & Head	Director, N.I.T. Trichy	01-02-2015	Till date
Professor	Director, N.I.T. Trichy	01-01-2010	Till date
Associate Professor	Director, N.I.T. Trichy	01-01-2006	31-12-2009
Assistant Professor	Director, N.I.T. Trichy	19-05-2002	31-12-2005
Senior Lecturer	Director, N.I.T. Trichy	19-05-1997	18-05-2002
Lecturer	Director, N.I.T. Trichy	19-05-1992	18-05-1997

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Bharathiar University	1992	-----	Mathematics
M.Phil.	Bharathiar University	1988	First	Mathematics
M.Sc.	Bharathiar University	1987	First	Mathematics
B.Sc.	Bharathiar University	1985	First	Mathematics
H.Sc	Tamil Nadu State Board	1982	First	Mathematics

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9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Associate Dean (Academic)	N.I.T. Trichy	01-09-2008	15-09-2010
Co-ordinator I – Year U.G.,	N.I.T. Trichy	26-07-2004	
Additional Co- ordinator I-year UG	N.I.T. Trichy	01-01-2006	11-11-2008
Secretary	Indian Society for Technical Education, REC- Chapter, New Delhi, India.	1997	2000
Staff-Adviser	Leo-Club of Regional Engineering College, Trichy-15, India.	1995	2003
Warden	REC Hostel, Regional Engineering College, Trichy-15, India.	2001	2003

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Visiting Professor	Department of Mathematics Pusan National University Pusan- 609-735, Republic of Korea	17-07-2003	18-07-2004
Member, Board of Studies in Mathematics & Computer Science	Erode Arts College (Autonomous), Erode- 638 009	2000	2003
Member, Board of Studies in Computer Science	Gobi Arts and Science College (Autonomous), Gobichettipalayam – 638 476, Erode	2004	2006
Member, Board of Studies in Mathematics,	Kongunadu Arts and Science College (Autonomous), Coimbatore – 641 029	2007	2010

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2013	Tamil Nadu Scientist Award	Tamil Nadu State Council for Science and Technology, Chennai- 600 025.

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12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
1989	Senior Research Fellowship	CSIR, New Delhi	05-10-1989	05-10-1991

13. Details of Academic Work

(i) **Curriculum Development:** Played a major role for preparing B.Tech and M.Tech Syllabus for mathematics.

(ii) **Courses taught at Postgraduate and Undergraduate levels:**

U.G.LEVEL	P.G.LEVEL
Engineering Mathematics Numerical Methods Operations Research	Engineering Mathematics Software Engineering Database Management Systems

(iii) **Projects guided at Postgraduate level:** ---Nil---

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Nil	Nil			Nil

15. Number of PhDs guided : 08

Currently guiding : 02

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

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ presenter, Any other)	Event Organized by	Venue
28.09.1994 to 25.10.1994	Refresher Course in Analysis and Applications	National	Attended	Bharathidasan University, Tiruchirappalli.	Bharathidasan University, Tiruchirappalli.

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22.12.1999	Symposium on Mathematical Methods and Applications	National	Attended	Indian Institute Technology Madras, Chennai.	Indian Institute Technology Madras, Chennai.
11.09.2002 to 01.10.2002	UGC Sponsored Refresher Course in Mathematics	National	Attended	Bharathiar University, Coimbatore. India.	Bharathiar University, Coimbatore. India.
22-07-2003 to 28-07-2003	Workshop on Recent Trends in Applicable Mathematics	National	Attended	Pusan National University, Pusan, South Korea.	Pusan National University, Pusan, South Korea.
29-11-2004 to 10-12-2004	Two week short term training programme on Numerical Linear Algebra	National	Attended	Department of Mathematics, Indian Institute of Technology Madras, Chennai.	Department of Mathematics, Indian Institute of Technology Madras, Chennai.
08-12-2005 To 09-12-2005	Workshop on Creation and Management of Infrastructure Facilities in Educational Institutions	National	Attended	Indian Institute of Technology Madras, Chennai.	Indian Institute of Technology Madras, Chennai.
28-05-2006 to 31-05-2006	International Conference on Computational Science ICCS2006	National	Attended	The University of Reading, U.K.	The University of Reading, U.K.
24-10-2007 to 04-12-2007	TEQIP training program	National	Attended	TEQIP	University of Central Florida

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01-02-2008 to 02-02-2008	Workshop on Trends in Bioinformatics	National	Attended	Department of Mathematics and Computer Applications, National Institute of Technology, Tiruchirappalli	Department of Mathematics and Computer Applications, National Institute of Technology, Tiruchirappalli
29-02-2008	Workshop on Multivariable Control Systems	National	Attended	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli
02-11-2008	The Seven Habits of Highly Effective People Training Program	National	Attended	FranklinCovey in National Institute of Technology,	FranklinCovey in National Institute of Technology, Tiruchirappalli

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

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
Workshop on Introduction to Simulating Complex Predictive System and Bayesian Modeling in Image Processing	National	25-01-2008	Organizer of Workshop	NIT, Trichy
Workshop on Simulating Complex Predictive System and Bayesian Modeling in Image Processing-Applications	National	28-01-2008	Organizer of Workshop	NIT, Trichy
Workshop on Nonlinear Control Systems	National	21-02-2008	Organizer of Workshop	NIT, Trichy
Workshop on Mathematics-I	National	05-03-2008 to 9-03-2008	Organizer of Workshop	NIT, Trichy

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Workshop on Mathematics-II	National	12-03-2008 to 16-03-2008	Organizer of Workshop	NIT, Trichy
Workshop on Teaching Mathematics for Easy Conceptualization and Strong Fundamentals	National	30-03-2008	Organizer of Workshop	NIT, Trichy
Workshop on Emerging Issues on Information Security	National	12-04-2008	Organizer of Workshop	NIT, Trichy
Workshop on Path Finding-Guidance and Counseling Efforts	National	04-04-2008 to 07-04-2008 and 17-04-2008 to 18-04-2008	Organizer of Workshop	NIT, Trichy

18. Invited Talks delivered

Topic	Date	Inviting Organization
National Conference on Networking and Multi – agent	25 th and 26 th September 2004	Gobi Arts and Science College, Gobichettipalayam
National Conference on Computer Algebra Systems	30 th and 31 st December 2004	Erode Arts College, Erode
UGC-SAP(DRS) National Conference on Computing and Mathematical Modeling	25 -26 th March 2005	Gandhigram Rural University, Gandhigram
National Conference on Distributed Networks	26 th and 27 th March 2005	Gobi Arts and Science College, Gobichettipalayam
National Conference on Computer Science and Communication Technology	16 th and 17 th February 2007	St. Joseph's College, Tiruchirappalli
UGC-SAP(DRS) National Workshop on Mathematical Modeling and Computational Mathematics	28.02.2010	Gandhigram Rural University, Gandhigram
Faculty Development Programme on Advances in Computational and Engineering Mathematics	Nov 27 th – Dec 3 rd , 2013	PSG College of Technology, Coimbatore
National Conference on Challenges on Computational Research and Applications	3 rd and 4 th December 2013.	Sree Saraswathi Thyagaraja College, Pollachi

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National Symposium on Mathematical Modeling and its Applications	25 th January 2014	KG College of Arts and Science, Coimbatore
National Workshop on Applications of Mathematics for Engineering Problems	1 st October 2014	Saranathan College of Engineering, Tiruchirappalli
TEQIP sponsored workshop on tour on Mathematics-II	13 th March 2015	Government College of Engineering, Salem

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Indian Society for Technical Education, New Delhi, INDIA.	

20. Academic Foreign Visits

Country	Duration of Visit	Programme
United States of America	One month	TEQIP-Sponsored Programme
United Kingdom		To attend and International Conference

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year
R. Chandra Guru Sekar and K. Murugesan	Numerical Solutions of Delay Volterra Integral Equations Using Single-term Walsh Series Approach	International Journal of Applied and Computational Mathematics		In Press	
R. Chandra Guru Sekar and K. Murugesan	STWS approach for Hammerstein system of non-linear Volterra integral equations of the second kind	International Journal of Computer Mathematics		In Press	

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R. Chandra Guru Sekar and K. Murugesan	Single-Term Walsh Series Approach for the System of Linear and Non-linear Volterra Integral Equations of First Kind	International Journal of Applied and Computational Mathematics	In Press		
R.Chandra Guru Sekar R. and K. Murugesan	System of linear Second order Volterra integro-differential equations using Single-Term Walsh Series technique	Applied Mathematics and Computation	Vol. 273	Pp 484-492	2016
R. Chandra Guru Sekar, V. Balakumar, and K. Murugesan	Method of Solving Linear System of Volterra Integro-Differential Equations Using the Single Term Walsh Series	International Journal of Applied and Computational Mathematics	In Press		
V. Balakumar and K. Murugesan	Numerical Solutions of Volterra-Integral-Algebraic equations using Block- Pulse functions	Applied Mathematics and Computation	Vol. 263	Pp 165-170	2015
V. Balakumar and K. Murugesan	Single-Term Walsh Series method for systems of linear Volterra integral equations of the second kind	Applied Mathematics and Computation	Vol. 228 (No. 1)	Pp 371-376	2014
V. Balakumar and K. Murugesan	Numerical solution of systems of linear Volterra integral equations using block-pulse functions	Malaya Journal of Matematik	Vol. S (No.1)	Pp 77-84	2013
A.Raghunathan and K. Murugesan	Performance-Enhanced Caching Scheme for Web Clusters for Dynamic Content	International Journal of Business Data Communications and Networking	Vol.7 (No.3)	Pp.16-36	2011
K. Murugesan and V.Balakumar	Study on Singular Systems of Index-3 via Runge-Kutta Method of Order-10	International Journal of Pure and Applied Mathematics	Vol.70 (No.5)	Pp 723-733	2011

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A.Raghunathan and K. Murugesan	Optimized Frequent Pattern Mining for Classified Data Sets	International Journal of Computer Applications	Vol.1 (No.27)	Pp 25-39	2010
A.Raghunathan and K. Murugesan	Schema-Based Cache Validation of Dynamic Content to Improve Query Performance of Web Services	Journal of Web Engineering	Vol.9 (No.2)	Pp 116-131	2010
P.Elango and K. Murugesan	Image Restoration using Cellular Neural Network with Contour Tracking Ideas	International Journal of Computer Theory and Engineering	Vol 2 (No.5)	Pp 724-729	2010
P. Elango and K. Murugesan	CNN based Augmented Reality using Numerical Approximation Techniques	International Journal of Signals and Image Processing	Vol.1 (No.3)	Pp 205-210	2010
K. Balachandran and K. Murugesan	Analysis of Different Systems via Single Term Walsh Series Method	International Journal of Computer Mathematics	Vol.33	pp 171-179	1990
K. Balachandran and K. Murugesan	Analysis of Nonlinear Singular Systems via STWS Method	International Journal of Computer Mathematics	Vol.36 (No.3-4)	pp 9-12	1990
K. Balachandran and K. Murugesan	Analysis of Electronic Circuits using the Single Term Walsh Series Approach	International Journal of Electronics	Vol.69, (No.3)	pp 327-332	1990
K. Balachandran and K. Murugesan	Numerical Solutions of Singular Systems	Advances in Modeling and Simulation	Vol.20 (No.2)	pp 1-8	1990

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Conference Theme	Venue	Year
R. Chandra Guru Sekar and K. Murugesan	STWS approach for system of nonlinear delay Volterra Integro-differential equations describing biological species living together	International Conference on Advances in Scientific Computing	IIT, Madras	2016

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R. Chandra Guru Sekar and K. Murugesan	Numerical solution of system of non-linear Volterra integral equations of second kind	International Conference on Nonlinear Dynamical Systems	Bharathiar University, Coimbatore	2016
V. Balakumar and K. Murugesan	Numerical solution of systems of linear Volterra integral equations using block-pulse functions	National conference	KSR College Tiruchengode	2014
V.Balakumar and K. Murugesan	Numerical Approximation of Jumarie's Fractional Integral	International Conference on Mathematical Modelling & Applied Soft Computing (MMASC)	Coimbatore Institute of Technology, Coimbatore	2012
V.Balakumar and K. Murugesan	A Numerical Method for a class of Linear Fractional Differential Equations	International Conference on Mathematical Modelling and Scientific Computation (ICMMSC)	Gandhigram Rural Institute – Deemed University, Dindigul	2012
V.Balakumar and K. Murugesan	A Numerical Method for Linear Fractional Differential Equations	Heber International Conference on Applications of Mathematics and Statistics (HICAMS)	Bishop Heber College, Tiruchirappalli	2012
V. Murugesan, K. Murugesan and Kyung Tae Kim	Simulation of Non-linear Singular System Using RK- Butcher Algorithm	International Conference on Convergence and Hybrid Information Technology (ICHIT)	Daejeon, Korea	2011
M.V. Judy, K.S. Ravichandran and K. Murugesan	An Enhanced Multi-objective Evolutionary Approach for Protein Structure Prediction	IEEE International Advance Computing Conference (IACC)	Patiala, India	2009
D. Paul Dhayabaran, E.C. Henry Amirtharaj, K. Murugesan and D.J. Evans	Numerical Solution of Robot Arm Model using STWs and RKHeM Techniques	International Conference on Computational Methods	Loyola College, Chennai	2006
K. Murugesan, V. Murugesan and P. Elango	A study on stability regions of the Runge-Kutta Algorithms based on variety of methods	International Conference on Mathematics and Computer Science	Loyola College, Chennai	2007
K. Murugesan, V. Murugesan and P. Elango	A study on Time – Invariant and time-varying Electronic Circuits using the RK- Butcher Algorithms	International Conference on Mathematics and Computer Science	Loyola College, Chennai	2007

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K. Murugesan, P. Elango and V. Murugesh	Web Usage Mining an Improved Data Mining algorithm	International Conference on Mathematics and Computer Science	Loyola College, Chennai	2007
V. Murugesh and K. Murugesan	Comparison of Numerical Integration Algorithms in Multi-layer Raster CNN simulation	19th National Convention of Computer Engineers	The Institution of Engineers (India), Kerala State Centre, Trivandrum	2005
V. Murugesh and K. Murugesan	Comparison of Numerical Integration Algorithms in Raster CNN simulation (Preliminary version)	7th International Conference on Information Technology	Institute for Development of Research in Banking Technology, Hyderabad.	2004
S. Sekar, V. Murugesh and K. Murugesan	Simulation of fed-batch fermentation process using RK-Butcher Algorithm.	International Conference on Mathematical Biology	Indian Institute of Technology, Kanpur	2004
S.Sekar, V.Murugesh and K.Murugesan	Analysis of Non-linear Singular Systems via Runge- Kutta Methods and the RK- Butcher Algorithm	International Conference on National Phenomena	Indian Institute of Science, Bangalore	2004
S.Sekar, V.Murugesh and K.Murugesan	The RK-Butcher Algorithm Approach to Stiff Systems of Higher Dimension	National Conference on Mathematical and Computational Models	PSG College of Technology, Coimbatore	2003
K.Balachandran, K.Murugesan and K.R.Palanisamy	A survey of Singular Systems	Proc. 13th National Systems Conference	IIT, Kharagpur, India	1989

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(C) **Books & Monographs**

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
K. Balachandran and K. Murugesan	Applications of Single-Term Walsh Series Techniques to Singular Systems	AMSE Press, Tassin, France	1992.	Nil