

# National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

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## Brief Profile



Prof. S. Selvakumar obtained his degree in Electronics and Communication Engineering with Distinction in 1983 from Madurai Kamaraj University, Madurai and Postgraduate degree in Computer Science and Engineering in 1987 from Regional Engineering College (REC), Tiruchirappalli. He was awarded Ph.D. degree by the Indian Institute of Technology Madras, Chennai in 1999. Since 1983, he has been in the teaching profession and currently he is the Professor (HAG) in the Department of Computer Science and Engineering, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India. He has been the Dean of IIIT, Tiruchirappalli, Tamil Nadu, India and currently the Director of IIIT, Una, Himachal Pradesh, India. He has 39 years of teaching experience and 29 years of research experience. His research interests include group communication in high-speed networks, routing, multimedia communication, scheduling for QoS guarantee, mobile networks, network security, wireless sensor networks, and network computing.

He completed three projects worth Rs.121/- lakhs, including Rs.100/- lakhs project on Collaborative Directed Basic Research in Smart and Secure Environment (CDBR-SSE) sponsored by National Technical Research Organization (NTRO), New Delhi. His contributions to the CDBR-SSE Project are: Unified Network Threat Management Solutions including RBPBoost - a DDoS attack detection using ensemble of classifiers, DEEPA – a Deep Packet Analysis cum Threshold Based DNS Monitoring Tool, H2M2 – a Hybrid Hidden Markov Model to detect host intrusions, and LISISAP – a link level signature based secure anonymous protocol for prevention of traffic analysis attacks. He has also contributed the technical solutions such as DataCrypt – to secure the data in flash drives and CRAYSE – a Search while Crawl technique. During his tenure as Convener, Computer Support Group (CSG), he established 10 Gbps high speed campus network connectivity. He is the investigator of Rs.106/- lakhs project, Nagarik Rog Pratirakshak: Unified Smart Immunization Coverage Monitoring and Analysis (UniSICMA) Project sponsored by Grand Challenges India – Immunization Data: Innovating for Action (IDIA).

He has to his credit of publishing 101 research papers including 47 in International and National Journals and 54 in International and National Conferences. Seven Ph.D. degrees have been awarded under his guidance. He is currently guiding one Doctoral Research Scholar. He has visited University of Alcalá, Madrid, Spain, Iowa State University, Ames, USA, City University of New York, USA, Queensland University of Technology, Brisbane, Australia, University of Vienna, Austria, Singapore, Canada, Switzerland, China, and South Korea.

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## Curriculum Vitae

1. Name: Selvakumar Subramanian
2. Designation: Professor (HAG) & Director
3. Office Address: Department of CSE, National Institute of Technology, Tiruchirappalli, 620015, India and  
Indian Institute of Information Technology Una, Himachal Pradesh, 177209, India.
4. Mobile (Optional): 0 94438 35520
5. Email (Primary): ssk@nitt.edu, director@iitu.ac.in  
Email (Secondary): selvanitt@gmail.com
6. Field(s) of Specialization: Computer Networks, Group communication in High-Speed Networks, Routing, Multimedia Communication, Scheduling for QoS guarantee, Mobile Networks, Network Computing, Distributed Systems, Collaborative Computing, Wireless Sensor Networks, and Network Security
7. Employment Profile

Job Title	Employer	From	To
Director	Indian Institute of Information Technology Una, Himachal Pradesh – 177209	05-07-2018	Till date
Professor (HAG)	National Institute of Technology Tiruchirappalli – 620015	05-07-2018	Till date
Professor	National Institute of Technology Tiruchirappalli – 620015	26-08-2000	04-07-2018
Assistant Professor	National Institute of Technology Tiruchirappalli – 620015	26-08-1992	25-08-2000
Lecturer	Madurai Kamaraj University, Madurai –15	01-07-1987	25-08-1992
Research Assistant	Regional Engineering College, Tiruchirappalli – 620015	18-12-1984	30-06-1987
Lecturer	Thiagarajar College of Engineering, Madurai –15	03-09-1984	15-12-1984
Instructor	K.L.N. Memorial Polytechnic, Madurai	18-06-1984	01-09-1984
Instructor	Periyar Centenary Girls Polytechnic, Vallam, Thanjavur	16-10-1983	16-06-1984

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Indian Institute of Technology Madras, Chennai.	1994- 1998	Not Applicable	Computer Networks
M.E.	Regional Engineering College, Tiruchirappalli -620015	1985- 1987	First class	Computer Science and Engineering
B.E.	Madurai Kamaraj University, Madurai-15	1978- 1983	First class with Distinction	Electronics and Communication Engineering
Pre University Course	Madurai Kamaraj University, Madurai-15	1977 - 1978	First class	Maths, Physics, Chemistry
11 <sup>th</sup> Standard	Tamil Nadu State Board	1976- 1977	First class	Algebra Geometry

### 9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Dean (IIIT)	Indian Institute of Information Technology, Tiruchirappalli -620015	22-04-2016	04-07-2018
Dean (R &C)	National Institute of Technology Tiruchirappalli -620015	18-09-2015	21-04-2016
HoD, CSE Dept.	National Institute of Technology Tiruchirappalli -620015	14-03-2013	17-09-2015
Convener, Computer Centre Working Committee (CCWC)	National Institute of Technology Tiruchirappalli -620015	Jan. 2006	June 2009
Wardenship	Regional Engineering College, Tiruchirappalli -620015	1998	2000

### 10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member Board of Studies	NIT Karaikal, Puducherry	2015	2018
Member Board of Studies	SASTRA University, Thanjavur	2014	Till Date
Member Doctoral Committee	VIT, Vellore	2014	Till Date

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Member Doctoral Committee	VIT, Chennai	2014	Till Date
Resource Person	Thiagarajar College of Engineering, Madurai	Oct. 16, 2014	Oct. 18, 2014
Member of Senate	NIT Nagaland	2013	Till Date
Conference Session Chair	R.M.K. Engineering College, Kavaraipettai, Chennai	Mar. 01, 2012	Mar. 02, 2012
Member All India Board of IT Education	AICTE	2009	2015
Member Doctoral Committee	Anna University, Chennai	2000	Till Date
Member AICTE NBA Inspection Committee	As assigned by Office of NBA, New Delhi	2000	Till Date
Member Senior Staff Selection Committee	Various Institutions	2000	Till Date
Reviewer	International Journal on Adhoc Networks, Elsevier Publications, United Kingdom	2000	Till Date

11. Details of Academic Work

(i) Curriculum Development

Developed ten new courses for M.E. (CSE) and B.E. (CSE) students of R.E.C. Trichy.

(ii) Courses taught at Postgraduate and Undergraduate levels

Computer Networks, High Speed Networks, Distributed Computing, Network Security, Basics of Programming, Computer Organization, Operating Systems, Computer Architecture, Microprocessor Systems, Network Principles and Protocols, Advanced Network Principles and Protocols, Advanced Computer Organization

(iii) Projects guided at Postgraduate level

50 Projects

(iv) Other contribution(s)

- Established Parallel and Distributed Processing Lab
- Established Network Engineering Lab
- Established Collaborative Directed Basic Research in Smart and Secure Environment (CDBR-SSE) project Lab
- Established high speed campus wide backbone network of 10 Gigabits per second

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### 12. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Nagarik Rog Pratirakshak: Unified Smart Immunization Coverage Monitoring and Analysis (UniSICMA)	Biotechnology Industry Research Assistance Council (BIRAC)	2018	2021	Phase I Completed
Collaborative Directed Basic Research in Smart and Secure Environment (CDBR-SSE) project	NTRO, New Delhi	2007	2012	Completed
Network Engineering Lab	MHRD, New Delhi	2001	2003	Completed
Parallel and Distributed Processing Lab	MHRD, New Delhi	1994	1996	Completed

### 13. Number of PhDs guided: 08

Name of the PhD Scholar	Title of PhD Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
R. Leela Velusamy	Study on Quality-of-Service (QoS) Routing Techniques	Supervisor	2010
P. Arun Raj Kumar	Detection and Identification of DDoS Attacks using Ensemble of Neural Classifiers	Supervisor	2013
R. Alageswaran	GELSenVAC: A Novel Sensor Network Framework for WSN Simulation	Supervisor	2013
Sangeeta Bhattacharya	FESADS: An Efficient Offline Feature Selector and Online Network Attack Detection System	Supervisor	2015
A.R. Vasudevan	Dataset Approach towards building a Network Intrusion Detection System	Supervisor	2015
N.G. Bhuvaneshwari Amma	Anomaly based Approaches for Detection of Denial of Service Attacks	Supervisor	2020
E. Elakkiya	Detection of Spam Attacks launched through Social Network Sites	Supervisor	2021
S. Priya	A Study on Counteracting Phishing Attacks using Machine Learning Approaches	Supervisor	Thesis submitted in 2021

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14. Number of M.S. (By Research) guided: 06

Name of the M.S. Scholar	Title of Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
B. Radha	DEEPA: Deep Packet Analysis Cum Threshold Based DNS Monitoring Tool	Supervisor	2012
Kritika Govind	Auto PPKF: Auto-Pattern Programmable Kernel Filter for Suppression of Bot Generated Traffic	Supervisor	2013
Pathak Pritesh Rajesh	Blind Image Steganalysis of JPEG Images using Feature Extraction through the Process of Dilation	Supervisor	2014
Suriender Singh	Detection of Distributed Denial of Service through Ensemble Solution and Dimensionality Reduction	Supervisor	2015
Satyajit Jayasingrao Yadav	Detection of Application Layer DDoS Attack by Modeling User Behavior and Deep Learning	Supervisor	2016
Naveen Kumar Yadav	Optimized and Adaptive Digital Image Watermarking Techniques	Supervisor	2018

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

About 100 Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools, etc., as Resource Person.

16. 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
First CDBR-SSE workshop	National	23 <sup>th</sup> Mar. 2007 to 24 <sup>th</sup> Mar.2007	Chairman	National Institute of Technology Tiruchirappalli -620015
First Security Day workshop	National	20 <sup>th</sup> Oct. 2008	Chairman	National Institute of Technology Tiruchirappalli -620015

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Tenth CDBR-SSE workshop	National	19 <sup>th</sup> June 2009 to 20 <sup>th</sup> June 2009	Chairman	National Institute of Technology Tiruchirappalli -620015
Second Security Day workshop	National	9 <sup>th</sup> Oct. 2009	Chairman	National Institute of Technology Tiruchirappalli -620015
International Workshop on Big Data Analytics	International	28 <sup>th</sup> May 2020 to 30 <sup>th</sup> May 2020	Chairman	Online Platform
FDP on Big Data Computing	National	23 <sup>rd</sup> Nov. 2020 to 28 <sup>th</sup> Nov. 2020	Chief Patron	Online Platform
International Virtual Workshop on Artificial Intelligence in the IoT Security Services	International	14 <sup>th</sup> Dec. 2020	Workshop Chair	Online Platform
ATAL FDP on Data Science	National	1 <sup>st</sup> July 2021 to 5 <sup>th</sup> July 2021	Coordinator	Online Platform
ATAL FDP on Advanced Data Science	National	27 <sup>th</sup> Dec. 2021 to 31 <sup>st</sup> Dec. 2021	Coordinator	Online Platform

17. Invited Talks delivered: 80 Invited Talks have been delivered since 1999.

18. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member )	Organization	Membership No. with date
Life Member	ISTE	Since Jan. 2000
Life Member	CSI	9399, Since Jan. 2000
Member	IEEE	93604768, Since Jan. 2016

19. Academic Foreign Visits

Country	Duration of Visit	Programme
Australia	One Week	Presentation in Conference
Spain	One Week	Presentation in Conference
USA	One Month	TEQIP Visit, Presentation in Conference
Austria	One Week	Presentation in Conference
Canada	Two Days	University Visit
China	One Week	Presentation in Conference
South Korea	One Week	Presentation in Conference

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### 20. Publications

#### (A) Refereed Research Journals: 47

1. **S. Selvakumar** and S.V.Raghavan, "Differential priority based adaptive rate service discipline for QoS guarantee of video streams" International journal of Computer Communications, Volume 20, Number 13, November 1997, pp.1160-1174.
2. **S. Selvakumar**, S.Mary Saira Bhanu, and S. Chandramouli, "Simulation of Mobile Transmission Control Protocol" Computer Science and Informatics journal, Computer Society of India, Volume 29, No. 4, December 1999, pp.1-7.
3. **S. Selvakumar**, Amit Mahajan, Karan Malla, and Shailendrakumar singh, "RGB Manipulation Techniques for water marks in Image Authentication and Stenographic Applications" Journal of Computer, Volume 31, Number 1, March 2001, pp.1-7.
4. **S. Selvakumar**, V. Venkateswaran, "Partition Equalizer: A Scheduler for algorithm agile-encryptor ATM networks" International Journal of Computer Communications, Volume 24, Numbers 7-8, 1 April 2001, pp.631-640.
5. **S. Selvakumar**, and P. Prabakar, "Implementation and Comparison of Distributed Caching Schemes" International Journal of Computer Communications, Volume 24, Numbers 7-8, 1st April 2001, pp.677-684.
6. **S. Selvakumar** and Murali M. Brahmadesam, "Secure Dynamic any caching for 'Best' server selection using active Networks" International Journal of Computer Communications, Volume 24, Issue 18, 1st December 2001, pp.1819-1827.
7. **S. Selvakumar**, Vijay V., and Swarup Kumar Sahoo, "Delay Sensitive least frequently used algorithm for replacement in Web caches" International Journal of Computer Communications, Volume 27, Number 3, pp.322-326, 2003.
8. **S. Selvakumar** and Suchismita Das, "A Secure Single Transaction Online Voting Protocol" Journal of Computer Society of India, 2003. Volume 34, Number 2, April-June 2004, pp.14-20.
9. C. Mala and **S. Selvakumar**, "A Novel Sense and Cache Scheme to provide seamless Internet access to mobile users in a Cellular network" in the International Journal Transactions on Computers, Issue 3, Volume 5, March 2006, pp.692-696.
10. C. Mala and **S. Selvakumar**, "Construction of an Optimal Multicast Tree for group communications in a cellular network using Genetic Algorithm", in the International journal Computer Communications, Elsevier Publications, UK, Vol.29, 2006, pp. 3306-3312.
11. R. Leela and **S. Selvakumar**, "QoS Routing Using Genetic Algorithm (QoSGA)" in the International Journal of Computer and Electrical Engineering (IJCEE), Singapore, Vol.1, No. 3, August 2009, pp. 297-302.
12. R. Leela and **S. Selvakumar**, "Dynamic Mutli Constraint Multi Path QoS Routing Algorithm (DMCMPRA)" in the International Journal of Computer and Applications, ACTA Press, Canada, Vol. 32, No.3, 2010, pp.347-354.
13. V. Radhakrishnan and **S. Selvakumar**, "CRAYSE : Design and Implementation of Efficient Text Search Algorithm in a Web Crawler", ACM SIGSOFT Software Engineering Notes, Vol. 35, No.4, July 2010.
14. R. Leela and **S. Selvakumar**, "Genetic algorithm approach to dynamic multiconstraint multipath QoS routing algorithm for IP networks", International Journal of Communication Networks and Distributed Systems, Vol. 5, No.4, 2010, pp. 392-411.



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15. R. Leela and **S. Selvakumar**, “Multi-Constraint QoS Unicast Routing Using Genetic Algorithm (MURUGA)”, International Journal of Applied Soft computing (AOSC) by Elsevier Publication, UK, R. Leela and S. Selvakumar, “Multi-Constraint QoS Unicast Routing Using Genetic Algorithm (MURUGA), Applied Soft Computing Journal, Elsevier Publications, Vol. 11, Issue 2, March 2011, pp. 1753-1761.
16. C. Vembuselvi and **S. Selvakumar**, “LISISAP: Link Level Signature Based Secure Anonymous Protocol for Prevention of Traffic Analysis Attacks”, ACM SIGSOFT Software Engineering Notes, Volume 36, Issue 2, March 2011.
17. P. Arun Raj Kumar and **S. Selvakumar**, “Distributed Denial of Service Attack Detection using an Ensemble of Neural Classifier”, International Journal of Computer Communications, Elsevier Publications, UK, Vol. 34, July 2011, pp. 1328-1341.
18. Chandrabhanu Mahapatra and **S. Selvakumar**, “An Online Cross View Difference and Behavior based Kernel Rootkit Detector”, ACM SIGSOFT Software Engineering Notes, Volume 36, Number 4, July 2011.
19. Subash Dangol, **S. Selvakumar**, and M. Brindha, “Genuine ARP (GARP) – A Broadcast based Stateful Authentication Protocol”, ACM SIGSOFT Software Engineering Notes, Volume 36, Number 4, July 2011.
20. Sharath Chandra, V. and **S. Selvakumar**, “BIXSAN: Browser Independent XSS Sanitizer for prevention of XSS attacks”, ACM SIGSOFT Software Engineering Notes, Volume 36, Issue 5, July 2011.
21. Arun Raj Kumar, P. and **S. Selvakumar**, “M2KMIX: Identifying the type of High Rate Flooding Attacks using a Mixture of Expert Systems”, International Journal of Computer Network and Information Security, MECS Publishers, Hong Kong, Vol. 4, No.1, February 2012, pp.1-16.
22. Kritika Govind, Vivek Kumar Pandey, and **S. Selvakumar**, “Pattern Programmable Kernel Filter for Bot Detection”, Defence Science Journal, May 2012, Vol. 62, No. 3, pp. 174-179.
23. R. Alageswaran, **S. Selvakumar**, and P. Neelamegam, “WECalc: A Network Life Time Predictor Tool for WSN Applications”, Research Journal of Applied Sciences, Engineering and Technology, Vol. 4, Issue 9, May 2012, pp. 1027-1034.
24. Lakshmi Priya, S., Vinitha Reddy, G., and **S. Selvakumar**, “Avoidance of Security Breach through Selective Permissions in Android Operating System”, ACM SIGSOFT Software Engineering Notes, Volume 37 Issue 5, September 2012, pp 1-9.
25. P. Arun Raj Kumar and **S. Selvakumar**, “Detection of distributed denial of service attacks using an ensemble of adaptive and hybrid neuro-fuzzy systems”, International Journal of Computer Communications, Elsevier Publications, Vol. 36, Issue 3, February 2013, pp. 303-319.
26. Mohamed Ibrahim, A. K., Lijo George, Kritika Govind, and **S. Selvakumar**, “Threshold Based Kernel Level HTTP Filter (TBHF) for DDoS Mitigation, International Journal of Computer Network and Information Security, MECS Publishers, Hong Kong, Vol. 12, pp. 31-39.
27. Siva Brahmasani, **S. Selvakumar**, and E. Sivasankar, “Prevention of XSS Attacks Using STCD: Server Side Tagging and Client Side Differentiation”, ACM SIGSOFT Software Engineering Notes, Volume 37, Issue 6, November 2012, pp. 1-6.
28. Amritha Raghunath, Sadhana Ramachandran, **Selvakumar Subramanian**, Sreevatsan Vaidyanathan, “Data rate based adaptive thread assignment solution for combating the

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- SlowPOST denial of service attack”, ACM SIGSOFT Software Engineering Notes, Vol. 38, Issue 5, September 2013, pp. 1-5.
29. Sugavanesh, B., Hari Prasath, R., and **S. Selvakumar**, “SHS-HTTPS Enforcer: Enforcing HTTPS and preventing MITM, ACM SIGSOFT Software Engineering Notes, Vol. 38, Issue 6, November 2013, pp.1-4.
  30. Prithesh Pathak and **S. Selvakumar**, “Blind Image Steganalysis of JPEG images using feature extraction through the process of dilation”, Digital Investigation, Vol. 11, Issue 1, March 2014, pp.67-77.
  31. Kritika Govind and **S. Selvakumar**, “Auto – Pattern Programmable Kernel Filter (Auto-PPKF) for Suppression of Bot Generated Traffic, International Journal of Computer Network and Information Security, Vol. 1, 2014, pp.48-54.
  32. Vasudevan A. R. and **S. Selvakumar**, "Evolution of a Hybrid Model for an Effective Perimeter Security Device", Defence Science Journal, Vol.65, No. 6, 2015, pp.466-471.
  33. Vignesh P. and **S. Selvakumar**, “Design of an abstraction layer for communication with BOSH XMPP Server”, ACM SIGSOFT Software Engineering Notes, Vol.40, Issue 2, March 2015, pp. 1-4.
  34. Vasudevan A. R. and **S. Selvakumar**, "Intraclass and interclass correlation coefficient-based feature selection in NIDS dataset", Security and Communication Networks, Wiley Publications, Vol.8, Issue 18, December 2015, pp.3441-3458.
  35. Sangeeta Bhattacharya and **S. Selvakumar**, “LAWRA: A LAYered WRapper Feature Selection Approach for Network Attack Detection”, Security and Communication Networks, Wiley Publications, Vol.8, Issue 18, December 2015, pp.3459-3468.
  36. Vasudevan A. R. and **S. Selvakumar**, "Local outlier factor and stronger one class classifier based hierarchical model for detection of attacks in Network Intrusion Detection Dataset", Frontiers of Computer Science, Springer, Vol.10, Issue 4, 2016, pp.755-766.
  37. Sangeeta Bhattacharya and **S. Selvakumar**, “Multi-Measure Multi-Weight Ranking Approach for the Identification of the Network Features for the Detection of DoS and Probe Attacks”, The Computer Journal, Vol. 59, No. 6, 2016, pp.923-943.
  38. Bhuvanewari Amma N.G. and **Selvakumar S.**, “Deep Radial Intelligence with Cumulative Incarnation Approach for Detecting Denial of Service Attacks”, Neurocomputing, Elsevier, Vol. 340, 2019, pp. 294-308.
  39. Elakkiya E. and **Selvakumar S.**, “GAMEFEST: Genetic Algorithmic Multi Evaluation Measure based Feature Selection Technique for Social Network Spam Detection”, Multimedia Tools and Applications, Springer, 2019.
  40. Bhuvanewari Amma N.G. and **Selvakumar S.**, “Anomaly Detection Framework for Internet of Things Traffic using Vector Convolutional Deep Learning Approach in Fog Environment”, Future Generation Computer Systems, Elsevier, Vol. 113, 2020, pp. 255-265.
  41. Bhuvanewari Amma N.G., **Selvakumar S.**, and Leela Velusamy R., “A Statistical Approach for Detection of Denial of Service Attacks in Computer Networks”, IEEE Transactions on Network and Service Management, IEEE, Vol. 17 (4), 2020, pp. 2511-2522.
  42. E. Elakkiya, **S. Selvakumar**, and R. Leela Velusamy, “TextSpamDetector: textual content based deep learning framework for social spam detection using conjoint attention mechanism”, Journal of Ambient Intelligence and Humanized Computing, Springer, 2020, pp. 1-16.

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43. Bhuvaneshwari Amma N.G. and **Selvakumar S.**, “A Statistical Class Center based Triangle Area Vector Method for Detection of Denial of Service Attacks”, Cluster Computing, Springer, Vol. 24, pp. 393-415, 2021.
44. S. Priya and **S. Selvakumar**, “Detection of Phishing Attacks using Probabilistic Neural Network with a Novel Training Algorithm for reduced Gaussian Kernels and Optimal Smoothing Parameter Adaptation for Mobile Web Services”, International Journal of Ad Hoc and Ubiquitous Computing, Inderscience, Vol. 36, Issue 2, pp. 67-88, 2021.
45. S. Priya, **S. Selvakumar**, and R. Leela Velusamy, “Evidential Theoretic Deep Radial and Probabilistic Neural Ensemble Approach for Detecting Phishing Attacks”, Journal of Ambient Intelligence and Humanized Computing, Springer, 2021.
46. Bhuvaneshwari Amma N.G. and **Selvakumar S.**, “Optimization of Vector Convolutional Deep Neural Network using Binary Real Cumulative Incarnation for Detection of Distributed Denial of Service Attacks”, Neural Computing and Applications, Springer, 2021.
47. S. Priya, **S. Selvakumar**, and R. Leela Velusamy, “PaSOFuAC: Particle Swarm Optimization based Fuzzy Associative Classifier for Detecting Phishing Websites”, Wireless Personal Communications, Springer, 2022.

### (B) Conferences/Workshops/Symposia Proceedings: 54

1. **S. Selvakumar** and S.V. Raghavan, “A new closed group communication protocol for Internet” Conference Proceedings on Computer Networks, architecture, and applications, January 3-5, 1996, Bombay, India.
2. **S. Selvakumar** and S.V. Raghavan, “Dynamic multicast address assignment protocol for Transient groups”, NETWORKS’96: International Conference on Computer Networks, architecture, and applications, January 3-5, 1996, Bombay, India, pp. 27-42.
3. **S. Selvakumar** and S.V. Raghavan, “Dynamic multicast address assignment in Multimedia environments”, SEACOMM’96, 2<sup>nd</sup> International Conference on Communications and Computer Networks, August 27-29, 1996, Kuala Lumpur, Malaysia, pp. 35-38.
4. **S. Selvakumar** and S.V. Raghavan, “Multimedia communication with multicast support: A Framework based on RT architecture”, SEARCC’97: XVI annual regional conference and exhibition, December 3-6, 1997, New Delhi, India, pp. 236-237.
5. **S. Selvakumar**, J.Karthik, G.V. Ravishankar, and Y. Ramakrishna, “A dynamic programmable shared virtual path assignment algorithm for multi-port communication in ATM networks”, Proceedings of IEEE Tencon’99 conference held in September 15-17, 1999, Chenju, Korea.
6. **S. Selvakumar**, C. Mala, and K. Rajaraman, “Web searching by Relocatable Crawlers using Shark-Search Algorithm”, Proceedings of Seminar on Local Access Network for Next Millennium SLAN’98, Bhopal, 26-27 December 1998, pp. 121-128.
7. **S. Selvakumar**, S. Mary Saira Bhanu, and R. Jaganathan, “Mirror Site Synchronization using IP Multicast”, Proceedings of Seminar on Local Access Network for Next Millennium - SLAN’98, Bhopal, 26-27 December 1998, pp. 129-140.
8. **S. Selvakumar**, S. Mary Saira Bhanu, and N.Venkatesh, “Simulation of Multicast Archie Server Hierarchy”, Proceedings of Computing’99, 27-28 February 1999, Indore, pp. 41-47.

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9. **S. Selvakumar**, C. Mala, V. Ganesh and D.Suresh, "Web Caching Policies - A comparison", Proceedings of ADCOM'99 Conference, Roorkee, pp. 257-262.
10. **S. Selvakumar**, C. Mala, S.R.Vijay Sundar, and S. Saravanan, "Email Web Server: Browsing of the Web through Email", Proceedings of ADCOM'99 Conference, Roorkee, pp. 275-279.
11. **S. Selvakumar** and Naoshad Mehta, "A protocol for Secured Electronic Transactions over the Internet", Proceedings of the National Conference on Recent Trends in Advanced Computing NCRTAC 2000, Tirunelveli, India, 11-12 February 2000, pp. 49-54.
12. **S. Selvakumar** and P. Prabhakar, "Implementation and Comparison of Distributed Caching Schemes", Appeared in the Conference Proceedings IEEE ICON 2000, Singapore, September 2000.
13. **S. Selvakumar** and A. Muruganantham, "A Survey of Multicast Routing Protocols for Ad hoc Networks", Conference Proceedings on Computer Communications and Networking: CCN 2003, IIT, Roorkee, held during 15th - 17th Nov. 2003.
14. **S. Selvakumar** and R. Alageswaran, "Design of QoS Analyzer for Real time Video Stream", Conference Proceedings ADCOM 2003: International Conference on Advanced Computing held during 17th-20th Dec. 2003.
15. C. Mala and **S. Selvakumar**, "Genetic algorithm based routing for Multicast communication in Mobile networks", in the International Conference (CD) Proceedings of AACC 2005, Nepal, 2005.
16. C. Mala and **S. Selvakumar**, "Sense and Cache - a Novel Caching Scheme for mobile users in a Cellular Network", in the 5th World Scientific and Engineering Academy and Society (WSEAS) International Conference - EHAC'06: Electronics, Hardware, Wireless, and Optical Communication at Madrid, Spain during February 15th - 17th Feb. 2006.
17. R. Alageswaran and **S. Selvakumar**, "Embedded Networks (EmNets): Building Blocks and Issues" in the National conference on Information Technology MEPCOIT'07 organized by MEPCO Schlenk Engineering College, Sivakasi, Tamil Nadu, India on 9th March 2007
18. R. Leela and **S. Selvakumar**, "Dynamic Multi Constraint Multi Path QoS Routing Algorithm (DMCMPRA)", in the Eighth IASTED International Conference on Wireless Optical Communications (WOC 2008) held at Quebec City, Canada during 26-28 May 2008, pp. 173 - 178
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