

Dr. M. V. Vijayakumar

B.E (CSE, Mys), M.Tech(CSE, NIT-K), Ph.D (CSE, England), D.SC(Robotics, Tongo), P.G.C.R.T (Research, England), S.I.A (London).

(Recipient of International Research Award for outstanding merit and Research Potential, From British Govt.)

Professor and HOD, ISE

Dr.AIT, Bangalore

Ex: Director, New Horizon Research Foundation

Ex:Professor and HOD, ISE, NHCE

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Research website: <http://www2.dcs.hull.ac.uk/NEAT/dnd/agents/agents.html>

Research Group: <http://www.net.dcs.hull.ac.uk/NEAT>

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<http://www.net.dcs.hull.ac.uk/NEAT>

Dr. M.V. Vijayakumar is an reformer educationist, renowned researcher and and administrator. Presently working as a professor and HOD, ISE in the Dr. Ambedkar Institute of Technology, Bangalore, India. Previously worked as a Director of Research (founder Director), working with 4 principals in New Horizon Research Foundation. And also worked as a Professor and Head of the department of Information Science and Engineering at New Horizon College of Engineering, Bangalore. He has 21 years of Teaching, administration and Research experience. He has been recognized as a best administrator with good track of academic results and research.

He has an exceptional track record that he has earned his Ph.D at the age of 32, fortunate to serve as Professor and HOD from the age of 32, as director at the age of

33, He has meritorious academic track record since his childhood and stood School first in 8th, 9th and 10th Standards.

Vijayakumar M.V was born in Margal village, Bangarpet taluk, Kolar district in India. He completed B.E in Computer Science and engineering from the Department of Computer Science, SJCE, Mysore. He completed M.Tech in Computer Science and Engineering from the Department of Computer Science, KREC, Surathkal, presently named as NITK, India. Afterwards He worked as a software engineer, academician and then he fascinated towards research in his young age.

In his Research intrest and Curiosity joined Full time Phd course in United kingdom.He has been awarded PhD in Compurer science and engineering, Sub area Artificial Intelligence under the guidance of popular AI scientist Dr. Darryl.N.Davis, from the University of Hull, England, United Kingdom in his Young age. He obtained SIA from London, and Post Graduate Certificate course in Research Training (PGCRT), from the University of Hull, United Kingdom. He worked and has a collabrations with many Popular AI scientists Like Darryl N.Davis, Marvin Minsky from MIT media lab, USA, Sloman, from The University of Birmingham, UK etc.

He is one among the top pioneers in AI, who made lot of contributions to the AI field. He demonstrated the economic principles and emergent intelligence associated with artificial life. He shown how Economic theories can be applied on artificial life in order to analyze and model adaptive or intelligent behaviors to the whole world. He worked as a Researcher in the NEAT (Neural Emergant and Agent Teechnologies Research Group), Hull, United Kingdom (<http://www.net.dcs.hull.ac.uk/NEAT>).The NEAT Research Group pursues basic and applied research in the areas of neural networks, genetic algorithms, emergent (evolutionary) systems, knowledge systems (including fuzzy logic and computation), robotics, machine learning and agent technologies.

He has worked in intelligent systems since 2004; at both a theoretical level and in applications. He has published widely on cognitive architectures. He guided and guiding many PhD and other research students on various fields of artificial intelligence. His whole research uses computational agents to addresses a number of issues in Artificial Intelligence. For example, to relate activities in Artificial Intelligence, Cognitive Science and Artificial Life using the concept of Agent-hood. One of the *big* ideas is the use of architectures, Society of agents, SMCA, sommon sense reasoning, consciousness, at a theoretical, design and implementation level, to further theories of motivation, cognition and affect. He has published number of papers in the various National and International Journals and conferences. He has also guided a number of Undergraduate, postgraduate and Phd Projects. He has conducted number of guest Lectures, Seminars, Exhibitions, workshops and Conferences. He was a resource person for many Seminars and workshops. He has delivered more than 50 Keynote addresses and invited lectures. He also a Member for several Advisory Boards & Academic Boards and a Technical Program Committee Member for several International and National Conferences

He established Ten Centres of Excellence under the banner of New Horizon Research Foundation (Founder Director) in interdisciplinary and multi-disciplinary areas. He is one among the top pioneers in AI, who made lot of contributions to the AI field, yielding dual benefits to the society with the support of funding agencies like, VGST, DST, AICTE, ORSAS, IT/BT, UK Research Fellowships, etc. Many of his scientific experiments given him lot of recognition and awards, like ORSAS (Overseas Research Student award scheme) in 2005 for his Outstanding merit and Research Potential From British Government, Outstanding Researcher Award, from VIFA-2015, International Research Achievers Award, Indian Overseas Research award, etc.

Degree/Qualifications

Degree/Qualifications	Institution	Specialization	Completion Year	Grade/CGPA /comment
P.hD	University of Hull, England	Computer science	2004 November to -2008	Full time, Completed in 3.5 years
M.Tech	NITK(KREC), Surathkal	Computer science and Engineering	2002	First Class/6.1
B.E	SJCE, Mysore	Computer science and Engineering	1999	First Class/6.1
PGCRT	University of Hull, England	Research Training	2006	N/A
SIA	England Law	Security systems	2007	N/A

Work Experiences

Institution worked	Position held and Year	Years (20 Years)	Nature of work
Dr.AIT	Professor, Professor and HOD(ISE) 11/06/2014 to present	6 years, 5 months	As a HOD overall Incharge for department level administration, academic activities, and College level research activities.
New Horizon College of Engineering, Bangalore	Director, New Horizon Research Foundation (14/10/ 2009 to 10/06/2014)	5 Years	Framing the policies for Research activities, Spreading effective and Honest Research in Indian young minds through staff development programs/ conferences/seminars/symposiums Trainer for Research skills, Teaching and Administration
New Horizon College of Engineering, Bangalore	Professor and HOD, ISE Dept (July 15th 2008 to June 2013)	6 Years	Administration, Research and Teaching
University of Hull, England, United Kingdom	Research Scholar (2nd Nov 2004 to 5th May 2008)	3.5 Years	Research scholar & Teaching
Dr.Ambedkar Institute of Technology, Bangalore	Asst.Professor (5thMarch 2004 – Oct 25th 2004)	7 months	Teaching and Research
Vivekananda Insitute of Technology (VKIT, Bangalore)	Lecturer July 2000 to March 2004 (1 Year break)	3 Years	Teaching and Research
Pavan Polytechnic & NIIT, Computer center, Kolar	Faculty, August 1999 - December 2000	1.4 Months	Giving computer Training and Teaching. I trained Many bank managers through NIIT to adopt computers in Banks and Thought Foxpro and VB.

Subjects Handled -Analysis and Design of Algorithms (5th Sem, VTU, 2009 Batch)
-Prolog (For Undergraduates, University of HULL, UK)
- Information science Lab (University of HULL, UK)
- Material Science & Technology (For 'A' Level, UK)
- Mathematics (MCA 1st Sem, VTU syllabus)
- Advanced Operating System (For 2nd Sem M.tech, VTU syllabus)
- Object Technology (For 1st Sem M.tech, VTU syllabus)
- Neural Networks (For 6th B.E, VTU syllabus)
- Software Engineering (For 6th Sem B.E, VTU syllabus)
- Advanced Software Engineering (For 5th Sem MCA, VTU syllabus)
- Engineering Technology and Management (for 7th sem ISE, 2008 batch)
-Analysis and Design of Algorithms (5th sem BE ISE, 2009 Batch)
-M.S BITS Pilain

Programming Languages known : Prolog, JAVA,C, C++, COBOL, Pascal, FORTRAN,

Networking and : TCP / IP
Communication technology

Operating Systems worked : Win 9x / NT/VISTA, Dos & UNIX.
Knows software installations, OS
Repairing a system problems etc.

Publications:

- ❖ Vijayakumar M V, 2003, *Software Engineering*, Text book Published Shiva Publications as per VTU Syllabus, Karnataka, INDIA.
- ❖ Vijayakumar M V and Darryl N Davis, July 2010, Cognition, Metacognition, Agents, And Architectures, Text book (Manograph), Lambert Publication, Germany ISBN 10: 3838370511 / ISBN 13: 9783838370514.
- ❖ Vijayakumar M V and Darryl N Davis, Metacognition, Agents, Animats and the Society of Minds, AISB 2007, The AISB convention 2007 Artificial and Ambient Intelligence, April 2nd-4th 2007, Newcastle University, Newcastle upon Tyne, UK, Available at: http://www2.dcs.hull.ac.uk/NEAT/dnd/papers/AISB07_1.pdf
- ❖ Vijayakumar M V, Cognition and Metacognition in a Society of Mind, AI-2007, twenty-seventh SGAI International Conferences on Artificial Intelligence, Cambridge, England, 2007.

- ❖ Vijayakumar M V and Darryl N Davis, Metacognition in “Society of mind”, Accepted The IASTED International Conference on Artificial Intelligence and Applications (AIA 2008), February 11-13, 2008 Innsbruck, Austria. Available at: <http://www2.dcs.hull.ac.uk/NEAT/dnd/papers/IASTED-conference-paper.pdf>
- ❖ Vijayakumar M V and Darryl N Davis, 2008, Principles of Artificial Economics In Animal Minds, Accepted AIPR-08, International Conference on Artificial Intelligence and Pattern Recognition, Orlando, FL, USA, July 2008. Available at: <http://www2.dcs.hull.ac.uk/NEAT/dnd/papers/AIPR1V3.1.pdf>
- ❖ Vijayakumar M V, 2008, A Society of Mind Approach to Cognition and Metacognition in a Cognitive Architecture, PhD thesis, University of Hull, United Kingdom.
- ❖ Vijayakumar M V and Davis D N, 2008, Society of Mind Cognitive Architecture, Accepted ICAI'08 - The 2008 International Conference on Artificial Intelligence, Monte Carlo Resort, Las Vegas, Nevada, USA (July 14-17, 2008). Available at: <http://www2.dcs.hull.ac.uk/NEAT/dnd/agents/agents.html>
- ❖ Vijayakumar M V, 2008, A Society of Mind Approach to Cognition and Metacognition in a Cognitive Architecture, PhD thesis, submitted for AI 2007 Dissertation Award, USA.
- ❖ Vijayakumar M V and Davis D N, 2008, "Development of Cognitive Architecture based on the Principles of Artificial Economics, Journal under review for " *The International Journal of Innovative Computing and Applications (IJICA)*, Vol. 1, pp.74–103, Inderscience Publishers. Available at: <http://www2.dcs.hull.ac.uk/NEAT/dnd/agents/agents.html>
- ❖ Vijayakumar M V , Darryl N Davis and Shylaja K.R, 2009, Design of Metacontrol and Metacognition mechanisms in SMCA Using Norms and Affect rules , Accepted AIPR-09, International Conference on Artificial Intelligence and Pattern Recognition, Orlando, FL, USA, July 2009. Available at: <http://www2.dcs.hull.ac.uk/NEAT/dnd/agents/agents.html>
- ❖ Vijayakumar M V, Shylaja K.R, Vinutha and Arathi 2009, “Recent Trends in Cognitive Architecture”, RTCCI-09, National Conference, Dr.TTIT, KGF, India
- ❖ Vijayakumar M V and Davis D N, 2009, Design of Micro-agents based on the Artificial Economics, ICAI'09 - The 2009 International Conference on Artificial Intelligence, Monte Carlo Resort, Las Vegas, Nevada, USA (July 14-17, 2009).

- ❖ Design of SMCA for Space Robots, Published in NCRTIT-2009, SJBIT, Bangalore, India.
- ❖ Vijayakumar M V and Davis D N, 2009, Soft Artificial Life, Artificial Agents and Artificial Economics, (International Spring journal).
- ❖ Davis D N and Vijayakumar M V, 2010, A "Society of Mind" Cognitive Architecture based on the Principles of Artificial Economics. Published in International Journal of Artificial Life and Research,(ISBN 1947-3087; eISSN 1947-3079), Vol.1, No.1, January-March 2010 issue.
- ❖ Vijaykumar Venkatamuni M, Darryl N. Davis, Shylaja K. Ramulu and Vani Prasad E. 2010, Simulation and Robotics Testbeds, 22th International Conference on Tools with Artificial Intelligence, October 27-29, 2010, Arras, France
- ❖ Vijayakumar M V and Davis D N , 2010, A " Cognition, Metacognition agents and architectures" Published as a Manograph in Lambert Academic Publishing" Research,(ISBN 978-3-8383-7051-4), Vol.1, No.1, January-March 2010 issue.
- ❖ Vijayakumar M V, D.N.Davis, K.R.Shylaja, Vishwanth Y, and E.V.Prasad IMECS 2011, Computational Testbeds For Synthetic and Robotic Agents , IAENG (ISBN: 978-988-18210-3-4), Hong Kong, 16-18 March, 2011.
- ❖ Vishwanath Yamanappa, Mohammed Ahmed, Lokesh Ramakrishna, M.V Vijayakumar and Darryl N Davis, Trivial Perception a dichotomy in Perception, 2nd Annual International Conference on Advanced Topics in Artificial Intelligence ATAI 2011, Hotel Fort Canning, Singapore, 24 - 25 November 2011, ISSN: 2251-2179, E-Periodical ISSN: 2251-2187.
- ❖ Vishwanath Yamanappa, Mohammed Ahmed, Lokesh Ramakrishna, M.V Vijayakumar and Darryl N Davis, Trivial Perception a dichotomy in Perception, International Conference on Advances in Computer Engineering - ACE 2011, August 25-26 , 2011, Trivandrum, India.
- ❖ K.R.Shylaja, Vijayakumar M V, D.N. Davis & E.V. Prasad Consciousness and Common Sense critics in Cognitive Architectures: Case Study of Society of Mind Cognitive Architecture, International Journal of Artificial Life Research, (Accepted March 2012 To Appear in next issue).
- ❖ Devaraj Verma C, Dr M V Vijayakumar, “ Agent Classification Based on LS Theories”, published in National Conference on Recent Advancement in Computer Engineering (RACE 2014), held on 4th & 5th Aug 2014, organized by Dept of CSE, JSSATE, Bangalore.

- ❖ Devaraj Verma C, Dr M V Vijayakumar, Shilpa P Patil, “Social Tag Classification using SVM” published in International Journal of Current Engineering and Technology, issue April/june 2014.
- ❖ Devaraj Verma C, Dr. M.V Vijayakumar “Study of Self-Reflective Models” presented and published in *National conference on Artificial Intelligence and Software Engineering - 12*, held on 4-11-2012 at NHCE, Bengaluru.(obtained first Prize).
- ❖ Shashank Methro, Devaraj Verma C, “ The Cloud Computing Applications” published in ADVAYA '11, a National Level Technical Symposium, held on 3-11-2011 at Shridi Sai Engineering College, Bengaluru.
- ❖ Devaraj Verma, Dr. M V Vijayakumar, Usha J, “Gesture Movements of Robot using Handled device” presented and published in *National conference on Artificial Intelligence and Software Engineering - 11*, held on 4-11-2011 at NHCE, Bengaluru.
- ❖ Devaraj Verma C, Dr. M.V Vijayakumar "Design of Compressed Memory Model Based on AVC Standard for Robotics" Published in *International journal of Computer Science Issues*, Volume 7, Issue 5, September 2010, pg no 253-261.
- ❖ Devaraj Verma C, Dr. M.V Vijayakumar “Design of Computational Model for Robotics” presented and published in *National conference on Artificial Intelligence and Software Engineering - 10*, held on 29-10-2010 at NHCE, Bengaluru.
- ❖ Dr. M.V Vijayakumar, Mahesh k, Published paper in an “International Journal of Computer and Mathematical Science(IJCMS), ISSN 2347-8527, is a blind peer reviewed, referred international journal and impact factor is 2.58 and the published paper is indexed in Directory of Indexing and impact factor” the research paper titled “A Novel Based PROLOG Programming for Mean Wind Speed & Weibull Distribution at Hiregudda, Karnataka , India” on IJCMS, Vol. III, Issue VI, AUG 2014.
- ❖ K. Mahesh, M. V. Vijayakumar, Y. H. Gangadharaiah and j. Lithesh "statistical distribution analysis implementation using matlab for wind energy" Page 12-32, Asian Journal of Mathematics and Computer Research Volume 2 [Issue 1]
- ❖ Dr.M.V. Vijaya Kumar, Vishwanath Y, Significance of Belief Justification for Effective Perception using a BDI Agent, ISSN : 2229-6093: IJCTA, Int.J.Computer Technology & Applications, Vol 5 (5),1795-1800.
- ❖ Mahadeva B, Dr.M.V.Vijaya Kumar, Perceptual Symbol system on Cognitive Architecture, ISSN 2349-3607(Online), ISSN: 2349-4824(Print), International Journal of Advances in Engineering and, Scientific Research(IJAESR) Volume 2, Issue 1, Jan-2015, pp 11-18, Availabe at <http://www.arseam.com>.

- ❖ Shiva Prakash M, D, Dr M.V Vijayakumar, Development Cognitive Architecture For Implementing Micro and Macro Economic concepts, ISSN 2349-3607(Online), ISSN: 2349-4824(Print), International Journal of Advances in Engineering and, Scientific Research(IJAESR) Volume 2, Issue 1, Jan-2015, pp 1-10, Availabe at <http://www.ar seam.com>.
- ❖ Ganesha D, Dr M.V Vijayakumar, Application of Reinforcement learning Methodologies in SMCA, ISSN 2349-3607(Online), ISSN: 2349-4824(Print), International Journal of Advances in Engineering and, Scientific Research(IJAESR) Volume 2, Issue 1, Jan-2015, pp 30-35
- ❖ Vijayakumar M.V, S. Keerthi, Ashwini K, Survey Paper on Swarm Intelligence, . International Journal of Computer Applications115(5):8-12, April 2015, Published by Foundation of Computer Science, New York, USA: Available at <http://www.ijcaonline.org/archives/volume115/number5/20145-2273> Cite seer (hosted by Harvard University).
- ❖ Sharana Basappa M.V, Vijayakumar M.V, Private and Public Cloud Based Security Enable Approach for safe Authorized Elimination of Duplicate copies of files, International Journal of Science, Engineering and Technology Research(IJSETR), Volume4, Issue5, may 2015
- ❖ Ashwini K, Dr M V Vijayakumar, ‘Development Of Cognitive Architecture Using Ambient And Swarm Intelligence Using Society Of Agents’, *International Journal of Engineering and Computer Science*, vol.3, Issue. 12, December 2014, pg. 9960-9968, ISSN: 2319-7242.
- ❖ Ashwini K, Dr M V Vijayakumar, ‘Communication Among Agents Using SACA Architecture’, *International Journal of Computer Science and Information Technologies*, Vol. 6, Issue.4, 2015, pg. 3571-3576, ISSN: 0975-9646.
- ❖ Ashwini K, Dr M V Vijayakumar, ‘Development Of Swarm And Ambient Cognitive Architecture (SACA) By Using Society Of Agents’, *International Journal of Advanced Studies in Computer Science and Engineering*, vol.4, Issue.9, September 2015, ISSN: 2278 7917. Global Impact Factor 0.418 in 2014
- ❖ Dr M V Vijayakumar, ‘Ashwini K, Ganashree R, Survey On Ambient Intelligence’, *International Journal of Computer Technology and Applications*, vol.6, Issue. 3, May-June 2015, pg. 440-447, ISSN:2229-6093.
- ❖ Dr M V Vijayakumar Ashwini K, Krupashree B, , ‘Survey On Psychological Behavior Of People In A Group’, *International Journal of Computer Technology and Applications*, vol.6, Issue. 3, May-June 2015, pg. 453-458, ISSN: 2229-6093.

- ❖ Ashwini K, Dr M V Vijayakumar, Keerthi K, ‘Survey Paper On Swarm Intelligence’, *International Journal of Computer Applications*, vol.115, Issue.5, April 2015, ISBN: 973-93-80885-95-9.
- ❖ Dr M V Vijayakumar, Sushma D S, Govindaraju, Ashwini K, , ‘Designing CST implemented cognitive architecture [CSIA] for the agricultural fruit picking robot’, *International Journal of Engineering Sciences and Recent Technologies*, vol.5, Issue. 5, May 2016.
- ❖ Vishwitha, Govindaraju, Ashwini K, Dr M V Vijayakumar, ‘Comparison of different cognitive architectures with the newly proposed CSIA architecture’, *International Journal of Contemporary Research in Computer Science and Technology*, vol.2, Issue.5, May 2016.
- ❖ Dr M V Vijayakumar, Ashwini K, ‘Analysis of Group Performance by Swarm Agents in SACA Architecture’, Springer Conference, on March 10th 2016.
- ❖ Ashwini K, Dr M V Vijayakumar, ‘Survey On Swarm In BDI Model’, *International Conference on Recent Advances in Science and Engineering*, on October 30th and 31st, 2014.
- ❖ Ashwini K, Dr M V Vijayakumar, ‘Development of cognitive architecture using Ambient and Swarm Intelligence using Society of agents’, *National Conference on Emerging Research Trends in Technology of Modern Computing, Applications and Networking* on 27,28th December 2013 in Acharya Institute of Technology, Bangalore, India.
- ❖ Ashwini K, Dr M V Vijayakumar, “Designing the Ambient environment for the smart home”, *National conference on Recent Advancement in Computer Engineering* on 4-5th September 2014 in JSS Academy of Technical Education, Bangalore, India.
- ❖ Ashwini K, Dr M V Vijayakumar “Tools and Technologies in Ambient Intelligence”, REVAMP 14- National Conference on 3-5th April 2014 in Reva Institute of Technology and Management, Bangalore, India.
- ❖ Ashwini K, Dr M V Vijayakumar “Ambient Intelligence and Applications”, REVAMP 14- National Conference on 3-5th April 2014 in Reva Institute of Technology and Management, Bangalore, India.
- ❖ Vishwanath Y, Dr M V Vijaya Kumar, ” Study & Analysis of Threshold Perception using an Agent Environment”,(IJSRD) *International Journal for Scientific Research & Development*| Vol. 3, Issue 12, Feb 2016
- ❖ Vishwanath Y, Dr M V Vijaya Kumar, “A Perceptual Cognitive Model using BDI Model and Bayes Theorem”, (IJAIM)*International Journal of Artificial Intelligence and Mechatronics*, Volume 4, Issue 2, Sep-Oct-2015

- ❖ Vishwanath Y, Dr M V Vijaya Kumar, “Study & Analysis of Intention of a BDI Agent and its Performance”, (IJCES) International Journal Of Engineering And Computer Science ISSN: 2319-7242 Volume 4 Issue 9 Sep 2015, Page No. 14401-14405, Impact factor 3.093
- ❖ Vishwanath Y, Shyamala C, Veena T Dr M V Vijaya Kumar, ”Significance of Belief Justification for Effective Perception Using a BDI Agent”, (IJCTA) International Journal of Computer Technology & Applications ,Vol 5 (5), Sep-Oct 2014, 1795-1800 , Impact factor 2.804
- ❖ Vishwanath Y, Murali T S, Dr M V Vijaya Kumar, “Implementation of Perception Classification based on BDI Model using Bayesian Classifier”, (IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 5 (6) , 2014, 8161-8165, Impact factor 2.93
- ❖ Manjunath A E, M V Vijay Kumar, “ Design and development of Efficient gesture Recognition framework for real time application”,International Journal of Advanced Research in Computer and Communication Engineering,Vol 6,Issue 1,Jan 2017,PP 232-236.
- ❖ Manjunath A E, M V Vijay Kumar,” A Efficient METHOD FOR DETECTING THE QRS COMPLEX OF THE ECG SIGNAL and Processing “International Journal of Advanced Research in Education & Technology, ISSN 2394-6814, Vol 3, Issue7,Nov 2016,PP 1021-1025.
- ❖ Manjunath A E, M V Vijay Kumar,”Digital filter approach for complex ECG Signal:Survey”,IAEME, ISSN: 0976-6502, Vol 3, Issue 2, August 2016, PP 533-537.
- ❖ Ravinandan M.E, M.V Vijaya Kumar, Adaptive path exploration and cognitive map generation using swarm intelligence, IEEE, Mysuru, India, 26 June 2017 ISBN Information: Electronic ISBN: 978-1-5090-4697-3, Print on Demand(PoD) ISBN: 978-1-5090-4698-0.
 - Manjunath A E, M V Vijay Kumar, “ Design and development of Efficient gesture Recognition framework for real time application”,International Journal of Advanced Research in Computer and Communication Engineering, ISSN: 2277-9043, Vol 6,Issue 1,Jan 2017,PP 232-236.
- ❖ K.R. Shylaja, M.V. Vijayakumar , E. Vani Prasad and Darryl N. Davis, Artificial Minds with Consciousness and Common sense, " IGI Global Publishers", DOI: 10.4018/978-1-7998-1754-3.ch069, pages 20, Available at <https://www.igi-global.com/chapter/artificial-minds-with-consciousness-and-common-sense-aspects/244067> (Accessed date:12/8/2020)

Scholarships

- ✓ International achievers award, Feb 2011, Achievers Forum, New Delhi.
- ✓ ORSAS (Overseas Research Student Award Scheme) Award for outstanding merit & excellence in Research for International Student, From British Government, UK (2004-2005) Received £ 60,000 money (50 lakhs INR award money).
- ✓ NOS (National Overseas Research Student Scholarship) Award from Indian Government, Delhi (Stood **First in Indian Selection List**, 2004-2007), 50 Lakh Rupees.
- ✓ Recipient of Fellowship from the University of Hull
- ✓ Received Maintenance award from Department of CSE, University of hull.

Seminars / Workshops Attended

- ✓ Learnability Insights, Feb 6th 2009, one day workshop conducted by Vipro, for HoD's
- ✓ And H.R's at Hotel Chancellor, Lavelle road, Bangalore, India.
- ✓ Mission 10x, 3daysworkshop successfully completed(Conducted by wipro) and got certificate on Innovative teaching skills.(October 27th to October 31st 2009)
- ✓ Session Chair, NCRTIT-2009, SJBIT, Bangalore-87
- ✓ Session Chair, RTCCI,6th March, 2009, Dr.TTIT, KGF, Kolar(dt), India
- ✓ Session chair and advisory committee member, Tatva- 2009 technical fest , BNMIT,Bangalore, India.
- ✓ Resource person, Reviewer, Session chair and Given key note on AI, JNC, Bangalore
- ✓ Selection committee member for Dr.TTIT, KGF, Kolar

- ✓ Resource person, For SDP on Web Technology , Jayamuki Institute of Technology , warangal, Andhra Pradesh.
- ✓ Resource Person, SDP on Research Methodologies, KVG Sulia, 24th April 2010.
- ✓ Resource Person, Faculty Development Program, High Impact Research Skills, 25th Feb 2012, Shiradi Sai Engineering College, Anekal, Bangalore.
- ✓ Attended various seminars and workshops in United Kingdom and India
Participated in numerous workshops & courses like effective research skills, thesis writing skills, etc

Research activities

- ✓ Research Grant from ORSAS, 50 Lakh Rs from British govt for Phd research sponsorship, 2005-2008
- ✓ Chair person and Founder, AISE Research group, NHCE, Bangalore-87
- ✓ Obtained Research center, ISE Dept, New Horizon college of Engineering, Bangalore, India-87
- ✓ Chair person, symposium, AISE-2009, May 22nd, conducted in NHLI seminar hall, NHCE, Bangalore, India-87.
- ✓ Obtained the Research grant from AICTE, 60,000 Rs as a sponsorship for this symposium. (June 2009)
- ✓ Obtained Staff Development Grant from AICTE, 3 lakhs (February, 2010)
- ✓ Received Conference Grant from AICTE, 1 lakh (February, 2010)
- ✓ Chair person, AISE-2009, October 2009, National Conference, Conducted in falconry seminar hall, NHCE, Bangalore-87
- ✓ Chair person, AISE-2010, National Conference on Artificial Intelligence and Software Engineering, New Horizon College of Engg, Bangalore.

- ✓ Chair person and resource person for Staff Development program on “High Impact Research skills” , 12th May 2010, conducted by New Horizon Research Foundation.
- ✓ Chair person, AISE-2011, National Conference on Artificial Intelligence and Software Engineering, New Horizon College of Engg, Bangalore.
- ✓ Chair person, AISE-2012, National Conference on Artificial Intelligence and Software Engineering, New Horizon College of Engg, Bangalore.
- ✓ Started M.Tech in Software Engineering Branch in ISE dept, New Horizon College of Engineering
- ✓ Received a grant of 4 Lakhs from AICTE, Grant- In -Aid Modrobs Modernization Of The Labs & Removal Of Obsolete

GRANTS RECEIVED BY DR.M.V.VIJAYA KUMAR				
AGENCY	TITLE OF PROJECT and DATE	AMOUN T	APPLIED BY	
Vision Group On Science And Technology (VGST)	Seed Money for Young Scientist for Research (SMYRS) File no: VGST/SMYSR/GR D-409/2014-15 January 2015	4 lakhs	DR.M.V.Vijaya Kumar CSE(PG), Dr.AIT	
AICTE	MODROBS File No: 12/Aicte/Rifd/Mod(Policy-3)Pvt-86/2012-13. March 2014-15	4 lakhs	DR.M.V.Vijaya Kumar, NHCE	
AICTE	Seminar Grant File no: 200-37/FIN/2001-2002/2489/1145 30/4/2009	30,000.00	DR.VIJAYA KUMAR M.V	
AICTE	Procuring a Research	5,75,000.00	SHIFTED FROM	

	Promotional Grant: 8/5/2009		DR.G.SAINA RAYANAIN TO DR. VIJAYA KUMAR M.V NHCE	
AICTE	Staff Development Program 1- 78/FD/SDP- 127/09/1029/1/201 0	1,47,675.00	DR. VIJAYA KUMAR M.V, NHCE	
AICTE	Seminar Grant19/2/2010	30,000.00	DR. VIJAYA KUMAR M.V, NHCE	
ORSAS British Govt, UK	Overseas Research Award Scheme from UK: Oct 2004	80 Lakhs	M.V. Vijaya Kumar	

Award Name	MONTHS & YEAR	
Overseas Research student Award	Oct 2004	VGST, Karnataka Govt
Seed Money for Young Scientist for Research (SMYRS)	January 2015	VGST, Govt of Karnataka
Outstanding Researcher Award	5th July 2015	VIFFA-2015, Chennai
India-International achievers award	2011	Business Global

International Gold Star
Millenium Award

14th Dec 2010

Citizens Integration Peace Society

Center of Excellences Established in New Horizon Research Foundation
(Founder Director)

SL. NO.	NAME OF THE DEPARTMENT	NAME OF THE RESEARCH CENTER
01	Basic Science and Humanities (NHCE)	Center for basic science, and humanities research
02	BioTechnology (NHCE)	CENTER FOR BIOTECHNOLOGY AND ENVIRONMENTAL STUDIES
03	COMPUTER SCIENCE AND ENGINEERING	CentEr For HiGH PERFORMance COMPUTING
04	ELECTRICAL AND ELECTRONICS ENGINEERING	CentEr For HiGH vOLTAGE AND POWER SYSTEMS RESEARCH
05	eLECTRONICS AND COMMUNICATION ENGINEERING	CentEr for microelectronics AND vlsi design
06	inFORMATION SCIENCE AND ENGINEERING	CENTER FOR ARTIFICIAL INTELLIGENCE AND SOFTWARE ENGINEERING (AISE) RESEARCH
07	MECHANICAL ENGINEERING	Center for Manufacturing and Mechanical system (CMTMS)
08	dEPARTMENT OF COMPUTER APPLICATIONS	CENTER FOR OBJECT MODELLING BASED IMAGE PROCESSING AND INTELLIGENT COMPUTING
09	dEPARTMENT OF MANAGEMENT STUDIES	CENTER FOR MANAGEMENT RESEARCH
10	library	CENTER OF EXCELLENCE IN DIGITAL LIBRARY AND

		INFORMATION SEARCHING
11	nEW hORIZON LEADERSHIP INSTITUTE	CENTER OF EXCELLENCE IN MANAGEMENT AND LEADERSHIP
12	nEW HORIZON COLLEGE	CENTER FOR ADVANCED BUSINESS RESEARCH
13	nEW HORIZON COLLEGE OF EDUCATION	CENTER FOR EDUCATION AND REGIONAL LANGUAGE RESEARCH
14	NEW HORIZON PRE-UNIVRESITY COLLEGE	CENTER FOR SCIENCE AND TECHNOLOGY
15	NEW HORIZON PUBLIC SCHOOL	CENTER FOR CHILDREN EDUCATION AND RESEARCH

Artificial Intelligence and Software Engineering Research Group (AISE), Bangalore, India

Aims of My Research Group (Chair person: Dr.Vijayakumar M.V)

This research group provides a research platform for researchers in the field of Computer science and Information Science. Especially in the areas of Artificial Intelligence, Neural Networks Software engineering, Cognitive science, Computer networks, Dataware house and Data mining.

This group gives an opportunity to share knowledge with different scholars from within the research group and other groups from India and abroad (UK, USA).

We are planning to push our research projects, along with Indian researchers to develop programs capable of tracing human, animals and machine minds. Our long-term goal is to understand how human mind works, so that we can develop a machine that thinks, and act like a human.

We are organizing a Research groups in the field of computer science/Information science and Engineering in India, (For example researchers from VTU, JNTU, Anna University, Mysore university, Kuvempu University) and prepare researchers to work on AI, Software Engineering and robotics, so that they can competent and participate world wide research activities.

Artificial Intelligence and Software Engineering Research Group (AISE) addresses a number of issues on different areas in Computer Science and Information Science Engineering. For example, to relate activities in Artificial Intelligence, Software

Engineering, Cognitive Science and Psychology are using the Cognitive models and Agents. Cognitive architectures, at a theoretical, design and implementation level, to further theories of AI, Software Engineering, Psychology, and Cognitive Sciences. The books, papers, articles, and journals listed below cover published work in this area since 2003.

My Present Research Work

“Human mind as a “Society of Mind” is larger, and rat mind as a “Society of Mind” is smaller in degree, with a smaller set of agents and agencies “.

This research investigates the concept of mind as a control system using the “Society of Agents” metaphor. “Society of Agents” describes collective behaviours of simple and intelligent agents. “Society of Mind” is more than a collection of task-oriented and deliberative agents; it is a powerful concept for mind research and can benefit from the use of metacognition. The aim is to develop a self configurable computational model using the concept of metacognition. A six tiered SMCA (Society of Mind Cognitive Architecture) control model is designed that relies on a society of agents operating using metrics associated with the principles of artificial economics in animal cognition. Qualities such as level of decision making, its cost function and utility behaviour (the microeconomic level), physiological and goal oriented behaviour are investigated. The SMCA model is designed and implemented for six layers: reflexive, reactive, deliberative (BDI), learning (Q-learner), metacontrol and metacognition.

Artificial mind can be viewed as a control structure for an autonomous software agent. Any cognitive or computational architecture can be viewed as either a single agent or a large collection of agents. I viewed, explored, experimented, simulated and tested mind concepts, from artificial agents. The developing architecture can be viewed from one perspective of Minsky (1985); this can be leads to developing many different types of simple agents, with different behaviours. These agents are distributed across different layers of architecture, so as to cover all processing and functioning associated with the adopted model of mind.

The fungus world testbed in this experiment involves cognitive and engineering perspectives. The fungus world environment has been created to contain dynamic and static entities. Static blocks are used to create a particular location within the environment. There are different parameters in the environment for the testing of an agent’s biochemical engine and performance. These include the presence and amount of standard fungus, small fungus, bad fungus, ore, golden ore, crystal and medicine. These entities affect agent’s through task orientation or physiological change. Different types of agents (random, reflexive, reactive, learner and BDI-models, metacontrol and metacognition) are introduced in this experiment.



Simulation Testbed for Testing Computational Theories of Mind

PhD Students completed : 09

Sl. No	USN No.	Student Name	Research Topic	Date of Registration	Research Center/University	Date of Declaration of PhD
1	11PP CSE008	Dr.Mahesh	Intelligent Schemes for Wind Data Analysis”	Aug 2011	Jain University	5th August, 2015
2	13PP CSE003,	Dr.Vishwanath Y	Development of Perceptual Cognitive Model using BDI Model.”–	Aug2012	Jain University	2nd Sept. 2016
API	13PP CSE009,	Dr.Ashwini K	Development of Cognitive Architecture by using Ambient and Swarm Intelligence in Society of Agents Metaphor	Aug 2012	Jain University	2nd Sept. 2016
4	1NH1 IPEM02	Dr.Devaraj Verma C	Design of computation model for Diversity of mind	Aug 2011	Jain University	28th June 2017

5	09022 P0556	Dr.Shylaja K.R	Design and Development of Cognitive model for Common sense and Consciousness Thinking for synthetic Agents	2009	JNTU, Kakinada	24th March 2018
6	1DA1 3PEN 07	Dr.Manjunat h A.E	An Efficient framework for design and development of gesture based ECG monitoring system for rural India	2018	VTU	27th Septem ber 2018
7	14PP CS00 4	G. Gnaneswari,	“Building an emotional conversational agent architecture based on principles cognitive pragmatics”	2019	Jain Unniversity	23/12/2 019
8	Ph.D- CB- JUL2 011- 0381	D. Ganesh	Development Of Enhanced Mind Cognitive Architecture By Using Different Advanced Learning Mechanisms	2020	Bharathiyar University	201/01/ 2020
9	Ph.D- CB- JUL2 011- 0383	Shiva Prakash M	Development of Enriched Cognitive Architecture for Conservation of Energy Using Swarm Intelligence Techniques	2020	Bharathiyar University	201/04/ 2020

Guiding: 04

Patents: 01

Patent Name	Patent no	Status
A system method to provide Efficient recovery of a data through an external USB	201741027213	Published (Attached)

Areas of Research: Artificial Intelligence, Software Engineering, Machine Learning

Personal Information

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Mother Name: G.Sarojamma

Wife Name : C.Anitha

Childrens Name: Diganth Roy M.V (Studying 8th Standard),
Yashmith Roy M.V (studying 3rd Standard)

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References

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Ex Vice_Chancellor
Kuvempu University,