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Experience

January 2008 to date: Senior Lecturer Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka. Responsibilities of the position include

- Curriculum development, designing course modules, teaching aids, and delivery.
- Coordinating the Washington-Accord (Institution of Engineers, Sri Lanka) accreditation in the department.
- Teaching large and small classes of students.
- Supervising student projects.
- Collaborating with parties such as industry, and professional bodies.
- Relevant student and departmental administrative activities.

April 2021 to date: Head of the Department Head, Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka

April 2022 to date: Chairman, Uni-Consultancy Services Chairman, Uni-Consultancy Services, University of Moratuwa, Sri Lanka. Uni-Consultancy Services is the consultancy arm of the University of Moratuwa.

August 2011 to April 2015: Chairman, Center for Open and Distance Learning (CODL) University of Moratuwa, Sri Lanka. University of Moratuwa offers its Bachelor of Information Technology External degree through CODL.

2008 to 2011: Director, Zone24×7—University of Moratuwa Laboratory I direct research projects in this research laboratory. We carry out research in association with Zone24x7 Inc., San Jose, CA, aimed at areas such as state-of-the-art video compression, and embedded vision.

2008: Research Associate Zone24×7 Inc., Koswatte, Sri Lanka, Head office: San Jose, CA. Responsibilities of the position include

- Managing a laboratory of research engineers.
- Conducting and guiding research projects.

2008–2010, 2014: Visiting Lecturer on secure languages and computational intelligence for University of Westminster, London, administered by Informatics Institute of Technology, Colombo, Sri Lanka.

2008: Lecturer on visual programming at Monash College, Colombo Sri Lanka, affiliated with Monash University.

2001–2002, 2008, 2020: Visiting Lecturer Sir General John Kotelawala Defence University, Ratmalana, Sri Lanka.

2003–2007: Research Assistant Department of Electrical and Computer Engineering, The University of Western Ontario, Canada.

2003–2007: Teaching Assistant Department of Electrical and Computer Engineering and Department of Physics and Astronomy, The University of Western Ontario, Canada. Responsibilities of the position include

- Designing teaching material.
- Maintaining the web-based learning management system.
- Conducting laboratory classes and tutorials.
- Managing large (approximately 200-student) groups of students.

2001–2002: Lecturer Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka. Taught large and small classes of students.

1994–1996: Banking Assistant Seylan Bank, Colombo, Sri Lanka. Responsibilities of the position include

- Customer service.
- Reconciling accounts.
- Training junior staff members for specific tasks.

Teaching Experience

2001–2002, 2008–to date Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka.

2009–2010, 2013 Faculty of Information Technology, University of Moratuwa, Sri Lanka.

2008–2010, 2014 University of Westminster, Degree Program at Informatics Institute of Technology, Colombo 06, Sri Lanka.

2008–2010 HNDE Program Managed by Edexcel UK, at International College of Business and Technology, Mount Lavinia, Sri Lanka.

2008 Monash College Program, at Australian National College, Colombo 03, Sri Lanka.

2001–2002, 2008, 2020–to date General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka.

2003–2007 Teaching Assistant at the Department of Electrical and Computer Engineering and Department of Physics and Astronomy, The University of Western Ontario, Canada.

Education

2005–2007: Doctor of Philosophy Department of Electrical and Computer Engineering, The Western University of Canada, London, ON, Canada. Area: Computer Vision, Thesis: Indoor Feature Tracking.

2003–2004: Master of Engineering Science Department of Electrical and Computer Engineering, The Western University of Canada, London, ON, Canada.

1996–2000: Bachelor of Science of Engineering Honors Department of Electronic and Telecommunication Engineering, University of Moratuwa, Sri Lanka. Obtained first class honors.

Other Training

2014: Training of Trainers Workshop on OBE and SCL This was conducted by HETC project with resource personnel including the Secretary to the Ministry of Higher Education.

2009: Proposal Writing Workshop for HETC Project This was a training program for the proposal writers for University Development Grant component of the World Bank funded Higher Education for Twenty First Centaury project.

2009: New Curriculum Workshop by Examinations Department I completed a workshop on the new Advanced Level curriculum.

2005: Training Program on Teaching I successfully completed a training course at The University of Western Ontario, Canada named Graduate Studies 500: The Theory and Practice of University Teaching (GS500). GS500 is an optional, interdisciplinary graduate credit course on the theory and practice of university teaching. In addition to lectures, reading, and seminars, this course includes supervised practice teaching sessions designed to improve classroom skills. Prof. Mike Atkinson, the then Faculty Associate for this course, is well known for his techniques of teaching very large classes. He has been awarded the National 3M Teaching Award, the most prestigious in Canada. So, in this program, special attention was paid to teaching large classes.

2006–2008: Web-based Teaching Having learned the web-based teaching material delivery techniques (Learning Management Systems), I designed and maintained Blackboard based courses for the Department of Electrical and Computer Engineering at the University of Western Ontario, Canada. I am well experienced in designing teaching material, and delivering them over the web and otherwise.

2007: WHMIS Training Workplace Hazardous Materials Information System (WHMIS) training as required by the University employees. The University of Western Ontario, Canada.

Contributions to Research

Area of interest: computer vision.

Publications

- [1] K. Abeywardena, S. Sumanthiran, S. Jayasundara, S. Karunasena, R. Rodrigo, and P. Jayasekara, “Korsal: Key-point based online real-time spatio-temporal action localization,” in *IEEE Canadian Conference on Electrical and Computer Engineering (CCECE)*, Regina, SK, 9 2023, pp. 279–284.
- [2] S. Kanagarajah, T. Ambegoda, and R. Rodrigo, “SATHUR: Self augmenting task hallucinal unified representation for generalized class incremental learning,” in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV) Workshops*, 10 2023, pp. 3473–3480.
- [3] S. Mahendren, C. U. Edussooriya, and R. Rodrigo, “Diverse single image generation with controllable global structure,” *Neurocomputing*, vol. 528, pp. 97–112, 2023.

- [4] D. Tissera, R. Wijesinghe, K. Vithanage, A. Xavier, S. Fernando, and R. Rodrigo, “End-to-end data-dependent routing in multi-path neural networks,” *Neural Computing and Applications*, vol. 35, no. 17, pp. 12 655–12 674, 2023.
- [5] M. Afham and R. Rodrigo, “Visual-semantic contrastive alignment for few-shot image classification,” in *ECCV Workshop on Computer Vision in the Wild*, Tel Aviv, Israel, 10 2022.
- [6] K. Kehelella, G. Leelarathne, D. Marasinghe, N. Kariyawasam, V. Ariyaratna, A. Madanayake, R. Rodrigo, and C. Edussooriya, “Vision transformer with convolutional encoder-decoder for hand gesture recognition using 24-GHz doppler radar,” *IEEE Sensors Letters*, vol. 6, pp. 1–4, 2022.
- [7] S. Hemachandra, R. Rodrigo, and C. Edussooriya, “Fast and accurate light field saliency detection through deep encoding,” *Signal Processing: Image Communication*, p. 116888, 2022.
- [8] D. Denipitiyage, V. Jayasundara, R. Rodrigo, and C. Edussooriya, “PointCaps: Raw point cloud processing using capsule networks with Euclidean distance,” *Journal of Visual Communication and Image Representation*, pp. 1–16, 2022.
- [9] D. Tissera, K. Vithanage, R. Wijesinghe, A. Xavier, S. Jayasena, S. Fernando, and R. Rodrigo, “Neural mixture models with expectation-maximization for end-to-end deep clustering,” *Neurocomputing*, vol. 505, pp. 249–262, 9 2022.
- [10] A. Thieshanthan, A. Niwarthana, P. Somarathne, T. Wickremasinghe, and R. Rodrigo, “HPGNN: Using hierarchical graph neural networks for outdoor point cloud processing,” in *International Conference on Pattern Recognition*, Montreal, QC, 8 2022, pp. 1–7.
- [11] M. Afham, I. Dissanayake, D. Dissanayake, A. Dharmasiri, K. Thilakarathna, and R. Rodrigo, “Cross-Point: Self-supervised cross-modal contrastive learning for 3D point cloud understanding,” in *IEEE/CVF Conference on Computer Vision and Pattern Recognition*, New Orleans, LA, 6 2022, pp. 9902–9912.
- [12] O. Jayasinghe, S. Hemachandra, D. Anhettigama, S. Kariyawasam, R. Rodrigo, and P. Jayasekara, “Ceymo: See more on roads-a novel benchmark dataset for road marking detection,” in *Proceedings of IEEE/CVF Winter Conference on Applications of Computer Vision*, Waikoloa, HI, 1 2022, pp. 3104–3113.
- [13] —, “Swiftlane: Towards fast and efficient lane detection,” in *IEEE International Conference on Machine Learning and Applications*, Pasadina, CA, 12 2021, pp. 859–864.
- [14] K. Kahatapitiya and R. Rodrigo, “Exploiting the redundancy in convolutional filters for parameter reduction,” in *Proceedings of IEEE/CVF Winter Conference on Applications of Computer Vision*, Waikoloa, HI, 1 2021, pp. 1–8.
- [15] N. Karunanayake, A. Wijesinghe, C. Wijethunga, C. Kumaradasa, P. Jayasekara, and R. Rodrigo, “Towards a smart opponent for board games: Learning beyond simulations,” in *Proceedings of IEEE International Conference on Systems, Man, and Cybernetics*, Toronto, ON, 10 2020, pp. 1–8.
- [16] D. Tissera, K. Vithanage, R. Wijesinghe, K. Kahatapitiya, S. Fernando, and R. Rodrigoo, “Feature-dependent cross-connections in multi-path neural networks,” in *Proceedings of International Conference on Pattern Recognition*, Milan, Italy, 2020, pp. 1–8.

- [17] A. Dias, H. Wellaboda, Y. Rasanka, M. Munasinghe, R. Rodrigo, and P. Jayasekar, "Deep learning of augmented reality based human interactions for automating a robot team," in *Proceedings of International Conference on Control, Automation and Robotics*, Singapore, 4 2020, pp. 175–182.
- [18] K. Kahatapitiya, D. Tissera, and R. Rodrigo, "Context-aware automatic occlusion removal," in *IEEE International Conference on Image Processing*, Taipei, Taiwan, 9 2019, pp. 1895–1899.
- [19] J. Rajasegaran, V. Jayasundara, S. Jayasekara, H. Jayasekara, S. Seneviratne, and R. Rodrigo, "DeepCaps: Going deeper with capsule networks," in *IEEE CVF Conference on Computer Vision and Pattern Recognition*, Long Beach, CA, 6 2019, pp. 10 725–10 733.
- [20] V. Jayasundara, S. Jayasekara, H. Jayasekara, J. Rajasegaran, S. Seneviratne, and R. Rodrigo, "TextCaps: Handwritten character recognition with very small datasets," in *IEEE Winter Conference on Applications of Computer Vision*, Hawaii, 1 2019, pp. 254–262.
- [21] S. Ramasinghe, J. Rajasegaran, V. Jayasundara, K. Ranasinghe, R. Rodrigo, and A. Pasqual, "Combined static and motion features for deep-networks based activity recognition in videos," *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 29, no. 9, pp. 2693–2707, 9 2019.
- [22] A. J. Ratnarajah, S. Goonetilleke, D. Tissera, K. Balagopalan, and R. Rodrigo, "Moving object based collision-free video synopsis," in *IEEE International Conference on Systems, Man, and Cybernetics*, Miyazaki, Japan, 10 2018, pp. 1658–1663.
- [23] M. P. Pathegama, D. Marasinghe, K. Wijayasekara, I. Karunanayake, C. U. S. Edussooriya, P. Silva, and R. Rodrigo, "Moving kinect-based gait analysis with increased range," in *IEEE International Conference on Systems, Man, and Cybernetics*, Miyazaki, Japan, 10 2018, pp. 4126–4131.
- [24] I. Dayawansa, C. Wijenayake, C. Edussooriya, T. Samarasekara, C. Karunasekara, D. Dias, K. Samarasasinghe, C. Kulasekera, R. Rodrigo, and N. Dayananda, "Blended induction program for electronic engineering freshmen," *International Journal of Electrical Engineering Education*, vol. 55, no. 4, pp. 354–366, 5 2018.
- [25] S. Ramasinghe, J. Rajasegaran, V. Jayasundara, K. Ranasinghe, R. Rodrigo, and A. Pasqual, "Micro actions and deep static features for activity recognition," in *International Conference on Digital Image Computing: Techniques and Applications*, Sydney, Australia, 2017, pp. 1–8.
- [26] S. Ramasinghe and R. Rodrigo, "Action recognition by single stream convolutional neural networks: An approach using combined motion and static information," in *Asian Conference on Pattern Recognition*, Kuala Lumpur, Malaysia, 11 2015, pp. 101–105.
- [27] D. J. Jayamanne and R. Rodrigo, "Establishing object correspondence across non-overlapping calibrated cameras," in *Moratuwa Engineering Research Conference (MERCon), 2015*, Moratuwa, Sri Lanka, 4 2015, pp. 154–159.
- [28] T. D. Gamaage, J. G. Samarawickrama, R. Rodrigo, and A. A. Pasqual, "Image filtering with mapreduce in pseudo-distribution mode," in *Moratuwa Engineering Research Conference (MERCon), 2015*, Moratuwa, Sri Lanka, 4 2015, pp. 160–164.
- [29] A. L. Hettiarachchi, H. O. Thathsarani, P. U. Wickramasinghe, D. S. Wickramasuriya, and R. Rodrigo, "Extensible video surveillance software with simultaneous event detection for low and high density crowd analysis," in *2014 7th International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2014, pp. 1–6.

- [30] K. G. M. Chathuramali, S. Ramasinghe, and R. Rodrigo, "Abnormal activity recognition using spatio-temporal features," in *2014 7th International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2014, pp. 1–6.
- [31] K. G. M. Chathuramali and R. Rodrigo, "Action recognition using a spatio-temporal model in dynamic scenes," in *2014 7th International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2014, pp. 1–6.
- [32] S. Ramasinghe, K. G. M. Chathuramali, and R. Rodrigo, "Recognition of badminton strokes using dense trajectories," in *2014 7th International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2014, pp. 1–6.
- [33] A. Thalaiyasingam, K. Parameswaran, and R. Rodrigo, "Automatic number plate recognition in low quality videos," in *Proceedings of the 2013 8th IEEE International Conference on Industrial and Information Systems*, Colombo, Sri Lanka, 12 2013, pp. 566–571.
- [34] D. J. Jayamanne and R. Rodrigo, "Appearance based tracking with background subtraction," in *Proceedings of the 2013 8th International Conference on Computer Science & Education*, Colombo, Sri Lanka, 4 2013, pp. 643–649.
- [35] K. G. M. Chathuramali and R. Rodrigo, "Faster human activity recognition with SVM," in *Proceedings 2012 International Conference on Advances in ICT for Emerging Regions*, Colombo, Sri Lanka, 12 2012, pp. 197–203.
- [36] F. Mohideen and R. Rodrigo, "Curvature based robust descriptors," in *Proceedings of the British Machine Vision Conference*. Surrey, UK: BMVA Press, 9 2012, pp. 41.1–41.11.
- [37] R. Dabarera and R. Rodrigo, "Vision based elephant recognition for management and conservation," in *Proceedings of IEEE International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2010, pp. 163–166.
- [38] D. S. Gamage, B. Samarakoon, R. Dabarera, S. M. Handagala, and R. Rodrigo, "Feature enhancement for mean-shift based object tracking," in *Proceedings of IEEE International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2010, pp. 282–285.
- [39] K. Kandasamy and R. Rodrigo, "Use of a visual word dictionary for topic discovery in images," in *Proceedings of IEEE International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2010, pp. 510–515.
- [40] N. Ganganath, G. Attanayake, T. Y. Bandara, P. Ilangakoon, R. Rodrigo, A. Madanayake, and L. T. Bruton, "Scanned-array audio beamforming using 2nd- and 3rd-order 2D IIR beam filters on FPGA," in *2010 IEEE International Conference on Microelectronics (ICM)*, Cairo, Egypt, 12 2010, pp. 451–454.
- [41] B. Maldeniya, D. Nawarathna, K. Wijayasekara, T. Wijegoonasekara, and R. Rodrigo, "Computationally efficient implementation of video rectification in an FPGA for stereo vision applications," in *Proceedings of IEEE International Conference on Information and Automation for Sustainability*, Colombo, Sri Lanka, 12 2010, pp. 219–224.
- [42] J. Senarathna and R. Rodrigo, "Shape prior based object extraction using a log-polar domain representation," in *Proceedings of IEEE International Conference on Industrial and Information Systems*, Kandy, Sri Lanka, 12 2009, pp. 592–597.

- [43] M. Samarawickrama, A. Pasqual, and R. Rodrigo, "FPGA-based compact and flexible architecture for real-time embedded vision systems," in *Proceedings of IEEE International Conference on Industrial and Information Systems*, Kandy, Sri Lanka, 12 2009, pp. 337–342.
- [44] T. S. F. W. Gunawardane, R. Koggalage, R. Rodrigo, and S. Rajapakse, "Patient alert and decision support system," in *Proceedings of IEEE International Conference on Advances in Computational Tools for Engineering Applications*, Zouk Mosbeh, Lebanon, 7 2009, pp. 656–660.
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- [47] E. Ukwatta, R. Rodrigo, J. Samarabandu, and M. Hall, "Vision based spectroscopy simulation," in *Proceedings of IEEE Canadian Conference on Computer and Robot Vision*, Windsor, Canada, 5 2008, pp. 363–368.
- [48] D. J. Jacques, R. Rodrigo, K. A. McIsaac, and J. Samarabandu, "An application framework for measuring the performance of a visual servoing control reaching task for the visually impaired," in *Proceedings of IEEE International Conference on Systems Man and Cybernetics*, Montreal, Canada, 10 2007, pp. 1–7.
- [49] Z. Chen, J. Samarabandu, and R. Rodrigo, "Recent advances in simultaneous localization and map-building using computer vision," *Advanced Robotics*, vol. 21, no. 3–4, pp. 233–265, 3, 4 2007.
- [50] Z. Chen, R. Rodrigo, and J. Samarabandu, "Implementation of an update scheme for monocular visual SLAM," in *Proceedings of IEEE International Conference on Information and Automation*, Colombo, Sri Lanka, 12 2006, pp. 212–217.
- [51] R. Rodrigo, Z. Chen, and J. Samarabandu, "Feature motion for monocular robot navigation," in *Proceedings of IEEE International Conference on Information and Automation*, Colombo, Sri Lanka, 12 2006, pp. 201–205.
- [52] M. Sewell, J. Samarabandu, R. Rodrigo, and K. McIsaac, "The rank-scaled mutation rate for genetic algorithms," *International Journal of Information Technology*, vol. 3, no. 1, pp. 32–36, 2006.
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- [55] R. Rodrigo and J. Samarabandu, "Monocular vision for robot navigation," in *Proceedings of the IEEE International Conference on Mechatronics and Automation*, Niagara Falls, Canada, 7 2005, pp. 707–712.
- [56] D. J. Jacques, R. Rodrigo, K. A. McIsaac, and J. Samarabandu, "An object tracking and visual servoing system for the visually impaired," in *Proceedings of the IEEE International Conference on Robotics and Automation*, Barcelona, Spain, 4 2005, pp. 3510–3515.

- [57] J. Samarabandu and R. Rodrigo, “Line cue augmented perspective structure from motion,” in *SPIE Image Processing: Algorithms and Systems III*, San Jose, California., 1 2005, pp. 297–307.
- [58] R. P. Rodrigo, K. Ranaweera, and J. Samarabandu, “Focus of attention mechanism for gaze control within a framework for intelligent image a analysis tools,” in *SPIE Image Processing: Algorithms and Systems III*, San Jose, CA, 1 2004, pp. 142–146.

Graduate Student Supervision

1. Dumindu Tissera (Ph.D., 2023)
2. Sameera Ramasinghe (M.Phil., 2017)
3. Dileepa Jayamanne (M.Phil., 2014)
4. Manosha Chathuramali (M.Sc., 2014)
5. Mahendra Samarawickrama (M.Sc., 2010)

Services

1. CVPR reviewer for 2022, 2023, 2024
2. Reviewer for IEEE Transactions on Image processing
3. Reviewer for IEEE Transactions on Circuits and Systems for Video Technology
4. Reviewer for Neurocomputing
5. ICCV reviewer for 2023.
6. ECCV reviewer for 2022, 2024.
7. WACV reviewer for 2023, 2024.
8. MICCAI reviewer for 2023, 2024.
9. ICPR reviewer for 2022.

Presentations, Seminars, and Workshops

2023: Invited Talk at Global CEO Forum Invited talk on “Shaping the future of business in Sri Lanka: Insights on Artificial Intelligence” at the Global CEO Forum, Colombo, Sri Lanka, on September 21, 2023.

2023: Training of Trainers in ML Training of Trainers Program on Application of Machine Learning to be Taught in School Classrooms, conducted by the Ministry of Education and the Department of Electronic and Telecommunication Engineering, the Unit of Moratuwa, Sri Lanka.

2023 Invited Talk at Visakha Vidyalaya Science day on applications of artificial intelligence in biomedical engineering on July 5, 2023.

2020 Invited Talk at IEEE Sri Lanka Robotics Meetup, held in Colombo, Sri Lanka, on March 6, 2020.

2016 Invited Talk at International Symposium on Applied Analytics for a Smart Society, held in Colombo, Sri Lanka, on August 31, and September 1, 2016.

2013 ICT Day Keynote Address at Sirimavo Balika Vidyalaya Gave the keynote address on information and communication technologies at the annual ICT day at Sirimavo Balika Vidyalaya, Colombo (June 28, 2013).

2013 Science Day Keynote Address at Ananda College Gave the keynote address on artificial intelligence at the annual science day at Ananda College, Colombo as the chief guest (March 12, 2013).

2012 Keynote Address at Maris Stella College Attended the annual prizegiving at the chief guest and delivered the keynote address (September 14, 2012)

2012 ICT Day Talk at Piliyandala Central College Gave a talk on the recent advances of artificial intelligence for the students at Piliyandala Central College.

2012 Career Guidance Seminar at De Mazenod College Conducted a career guidance seminar at Dr Mazenod College, Kandana on the profession of engineering.

2012 Moodle for NIE Academic Staff Conducted a learning management systems workshop for academic staff members of the National Institute of Education along with Dr. Nuwan Dayananda and Dr. Gayani Samarawickrema.

Affiliation to Funded and Industry Research Projects

2020 Principal investigator for the World Bank's Ahead Research, Innovation and Commercialization Grant for development of an edge-processing camera and the associated processing system.

2019-to-date Principal investigator for the National Research Council Research Grant (No. NRC 19-080) for optimizing convolutional neural network in a signal processing perspective.

2016-to-date Principal investigator for the University of Moratuwa, Senate Research Committee Grant (No. SRC/LT/2016/04) for activity recognition using RGBD cameras.

2016-to-date Co-investigator for the University of Moratuwa, Senate Research Committee Grant (No. SRC/LT/2016/10) lightfield denoising using low-complexity linear filters.

2012–2016 Principal investigator for National Science Foundation (Grant no. NSF RG/2012/CSIT/01) for Machine Vision Based Intelligent Surveillance System for Expressways.

2011–2016 Co-investigator and principal grant application author for National Research Council (Grant no. NRC 12-018) for Machine Vision Based Intelligent Surveillance System for Expressways.

2008–2009 Principal investigator in a project funded by Senate Research Committee, University of Moratuwa: involves motion model segmentation.

2006–2007 Principal researcher in a project funded by Ontario Centers of Excellence, in collaboration with Checkfluid Inc, ON., Canada: involved camera based spectroscopy to detect element species based on the intensity pattern of laser induced breakdown spectra seen by the camera.

2005–2007 Principal researcher in a project on computer based feature tracking funded by Natural Science and Engineering Research Council (NSERC) of Canada and the University of Western Ontario.

2003–2004 Principal researcher in a project on domain knowledge based image interpretation using computers funded by Natural Science and Engineering Research Council (NSERC) of Canada.

Other Projects, Contributions, and Voluntary Work

- Consultant for the Central Expressway Phase II for the CCTV, toll, and network (2019).
- Deputy coordinator for World Bank funded Higher Education for the Twenty-First Century project in the area of soft skill at University of Moratuwa.
- National ICT consultant for the Ministry of Education's Education for Knowledge Society Project funded by the Asian Development Bank.
- Toll collection system for the Southern Transport Development Project, Sri Lanka: I was a member of the team of four which studied the feasibility and developed the proposal for an electronic toll collection system couples with video tolling.
- Member, then Chairman of Technical Evaluation Committee for the Secondary Education Modernization Project of Asian Development Bank, for the Ministry of Education, Sri Lanka.
- Member of Technical Evaluation Committee for the Disaster Management Center, Ministry of Disaster Management and Human Rights, Sri Lanka.
- External resource person at the Department of Examinations, Sri Lanka.
- Resource person for the capacity building program conducted for the officers of the Central Environment Authority at University of Moratuwa, Sri Lanka.
- Maintained a website to disseminate knowledge on professional typography software, and designed websites as voluntary work (<http://www.ent.mrt.ac.lk/latex/>).
- Taught information technology skills to young adults and adults. I was able to inspire students to start their own projects to disseminate information technology know-how.

Professional Affiliations

- Senior Member of the Institute to Electronic and Electrical Engineers (IEEE), USA.
- Member of the IEEE Computer Society.

Academic Activities

Member, Standing Committee on DITEO University Grants Commission Standing Committee on Development of Information Technology Infrastructure and Online Education (DITEO) 2021–to date.

Member, ICT Strategy Committee member 2015–to-date.

Member, SRC Member of the Senate Research Committee (SRC) that manages the SRC grants at the university 2016–to date.

Member, FAC Member of the Faculty Academic Committee (FAC) of the Faculty of Engineering 2018–2021.

Member, University Senate Member of the Senate of the University of Moratuwa since September 2011–2015, 2021–to date.

Editor, Engineering Research Unit, University of Moratuwa I have been the editor of the Engineering Research Unit since 2009. I was responsible for being the technical chair of the annual ERU symposia 2009, 2010, and 2011 and the editor of the associated proceedings. I chaired the process of peer reviewing approximately 100 papers.

Non-Academic Activities

Senior Treasurer, Rotaract Club—February 2008–to date Rotaract club is one of the vibrant student clubs in the University affiliated with Rotary International, USA. Obtained University Council commendations.

President, University of Moratuwa Toastmasters Club—2009/2010 affiliated with Toastmasters International, USA. During my term the Club achieved the President’s Distinguished Club award, the highest award achievable by a club.

Member, Toastmasters Club Toastmasters club, affiliated with Toastmasters International, gives me the opportunity of enhancing my public speaking skills. I have reached the level of the *competent communicator*.

IET-Sri Lanka Committee Member 2008–2009 Committee member of the Institution of Engineering and Technology (IET)—Sri Lanka Network for the years 2008–2009.

Staff Advisor, Electronic Club—February 2008 Electronic Club (EClub) is the students’ association of the Department of Electronic and Telecommunication Engineering. I was responsible for guiding the students to organize a student-industry interaction day.

Treasurer, Rotaract Club—1999 Member of the club for several years, then the treasurer. Actively took part in organizing major events such as “A Glimpse of Heaven” held at Tower Hall Colombo, Sri Lanka, and “Are You Ready” at University of Moratuwa, Sri Lanka.

Honors and Awards

President’s Award for Scientific Reserach—November 2023 “For highly reated scienetific research as evaluated by peers and published in the year 2019: Deepcaps: Going Deeper with Capsule Networks, CVPR 2019”.

Outstanding Research Performances Award—2019, 2020, 2021, 2022 “Award of excellence in recognition of the outstanding research performances for 2018”, University of Moratuwa, Sri Lanka.

President’s Award for Scientific Publication—January 2014 “For scientific research evaluated by peers and published in the year 2009 in international scientific journals cited in the Science Citation Index, IEEE Transactions on Systems, Man, and Cybernetics—Part B: Cybernetics 2009, Vol. 39, Iss. 3 pp. 658–671.”

Outstanding Research Performances Award—September 2013 “Award of excellence in recognition of the outstanding research performances for the three years ending in 31st December 2010”, University of Moratuwa, Sri Lanka.

Outstanding Research Performances Award—August 2010 “Award of excellence in recognition of the outstanding research performances for the three years ending in 31st December 2009”, University of Moratuwa, Sri Lanka.

Supervising Award Winning Student Project—2008–2009 I supervised Lahiru Priyadarshana’s project on converting a regular LCD to a touchable screen using computer vision. This project won the gold medal at the National Best Quality Software Awards organized by the British Computer Society, Sri Lanka Section.

Award for Research Excellence—May 2007 at the annual Western Research Forum organized by the Society of Graduate Students at the University of Western Ontario, Canada.

Outstanding Research Presentation—July 2007 “Award for the Outstanding Presentation in Graduate Symposium 2007 in Robotics and Control” at the Graduate Symposium of the Department of Electrical and Computer Engineering at the University of Western Ontario, Canada.

Highest Average—July 1997 “Award for the Student Who Obtained the Highest Average at the First Year Examination in Engineering” for the academic year 95/96.

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