

HALPAGE WARUNA HARIPRIYA PREMACHANDRA

PhD (Japan), MSc (Sri Lanka), Bach. IT (Sri Lanka), DCSD (Sri Lanka),
MIEEE, MBCS, MACS, MCSSL



Head – School of Computing

Benedict XVI Catholic International Institute of Higher Education
(BCI Campus),
495, Minuwangoda Road, Bolawalana, Negombo, Sri Lanka.

Personal Information

Gender : Male
Name in Full : Halpage Waruna Haripriya Premachandra
Name with Initials : H.W.H Premachandra
Marital Status : Married
Postal Address : No – 29, Delwagura, Via Mirigama, Sri Lanka.

Contact Information

Residence : +94-312269614 / 077 200 74 24
Office : +94 31 2224 422
Mobile / whatsapp : +94-718265467
e-Mail (personal) : warunaprema@yahoo.com
e-Mail (official) : warunap@bci.lk

Academic Qualifications

Doctor of Philosophy in Engineering, Division of Electrical and Electronic Engineering, Graduate School of Engineering, Mie University, TSU, Nagoya, Japan. (By Research / Thesis) (2020)

Master of Science Specializing in Information Technology (MSc in IT), Faculty of Graduate Studies and Research, Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka. Two (02) Years Masters Course By Course Work with Research Component, (Thesis/Dissertation)

Master of Science in Artificial Intelligence, Department of Computational Mathematics, Faculty of Information Technology, University of Moratuwa, Sri Lanka. (Earned only 36 Credits from the total of available 38 Credits of Course work) (2010 - 2013)

Bachelors in Information Technology (Bach. IT) – University of Colombo School of Computing, University of Colombo, Sri Lanka (2006)

Diploma in Computer Systems Design (DCSD) – One year Full-time Diploma in Computing, National Institute of Business Management (NIBM), Sri Lanka, (2001)

Employment History

2023 Aug. to Date – Head / School of Computing, Benedict XVI Catholic International Institute of Higher Education (BCI Campus), # 495, Minuwangoda Road, Bolawalana, Negombo, Sri Lanka.

2010 to 2023 August – Instructor in Computer Technology Grade - I, Information Communication Technology Center, Wayamba University of Sri Lanka, Makandura (NWP), Gonawila, Sri Lanka.

2007 to 2010 – Instructor in Information Technology, University of Colombo School of Computing (UCSC), University of Colombo, Sri Lanka.

2001 to 2007 – Asst. Lecturer in Information Technology cum Academic Coordinator, IDM Affiliated University College, Negombo Regional Center, Negombo, Sri Lanka

2001 to 2001 - Visiting Lecturer for Visual Basic Programming Training Course at Council for Information Technology (CINTEC), Gampaha Regional Center

Associations / Memberships

Member, Institute of Electrical and Electronic Engineers – MIEEE (Obtained in 2021)

Member, Sri Lanka Association for Advancement of Science – MSLAAS (Obtained in 2021)

Member, British Computer Society – MBCS (Obtained in 2008)

Member, Australian Computer Society – MACS (Obtained in 2002)

Member, Computer Society of Sri Lanka – MCSSL (Obtained in 2008)

Member, Sri Lanka Association for Artificial Intelligence – MSLAAI (Obtained in 2009)

Member, Sri Lanka Association for Improving Higher Education Effectiveness – MSLAIHEE (Obtained in 2014)

Awards / Distinctions

Sri Lanka National Research Council (NRC) Merit Award for the research paper titled “Line Detection Speeding-up for Large-Size Document Images by Minimized Hough Space Generation and Local Image Domain Analysis with Parallel Pixel Scanning,” Int. Journal of Multimedia Technology (American V-King Scientific Publishing), Vol. 6, Issue 1, pp. 1-10, June 2016.

Successfully Completed the Certificate Course on Staff Development (CCSD) with a **MERIT PASS** in Overall Performance conducted by the Staff Development Center (SDC) of Wayamba University of Sri Lanka, Sri Lanka 2014.

Awarded to follow the In-country Training Program in e-Learning Technology – Jointly with Japan International Cooperation Agency (JAICA) & University of Colombo School of Computing, in 2007 July.

Professional Biography

I obtained my Doctors Degree in Engineering from Division of Electrical and Electronic Engineering, Graduate School of Engineering, Mie University, Tsu, Japan in 2020. Also I received a Master’s Degree Specializing in Information Technology from the Faculty of Graduate Studies and Research of Sri Lanka Institute of Information Technology, Sri Lanka in 2020. I obtained my Bachelor’s Degree in Information

Technology from University of Colombo School of Computing in 2006. Before that I had received the Diploma in Computer System Design from National Institute of Business Management, Sri Lanka, in 2001. Further I have followed the Degree of Masters of Science in Artificial Intelligence from 2010 to 2013 at University of Moratuwa, Sri Lanka. I'm also holding the full memberships from Institute of Electrical and Electronic Engineers, British Computer Society, Australian Computer Society and Computer Society of Sri Lanka as well.

From August, 2023 onward I'm serving to the Benedict XVI Catholic Institute of Higher Education (BCI Campus), # 495, Minuwangoda Road, Bolawalana, Negombo, Sri Lanka as the Head / Senior Lecturer of the School of Computing. Further from 2010 to 2023 August I have been working as an Instructor in Computer Technology at Information Communication Technology Center of Makandura Premises of Wayamba University of Sri Lanka. From 2007 to 2009 I served the University Of Colombo School Of Computing in the capacity of an Instructor in Information Technology. Further from 2001 to 2007 I served as an Assistant Lecturer in Information Technology cum Academic Coordinator at IDM Affiliated University College, Negombo in Sri Lanka.

Further I myself have involved a significant amount of academic, research and related activities including teaching for undergraduates, project supervision, carrying out significant amount of research work, software development etc., throughout my almost twenty four years of academic and related carrier. My main research interests are in the fields of Artificial Intelligence, Image Processing, Character Recognition, Natural Language Processing, IoT, etc. and ICT Education. I have also published a number of research papers and articles in leading national and international well-recognized journals and conferences as outcomes of my research activities being carried out to date.

Research interests

Artificial Intelligence (AI), Image Processing, Character Recognition, ICT Education, IoT applications, Robotics

Research Publications

Journal Papers with First Authorship

- [01] **H. W. H. Premachandra**, C. D. Parape and H. Kawanaka, Chinthaka Premachandra, "Speed-up Ellipse Enclosing Character Detection Approach for Large-size Document Images by Parallel Scanning and Hough Transform," International Journal of Machine Learning and Cybernetics (Springer), Vol. 8, Issue 1, pp 371–378, Feb. 2017. IF: 3.844
- [02] **H. W. H. Premachandra**, T. Kimura and H. Kawanaka, Chinthaka Premachandra, "Line Detection Speeding-up for Large-Size Document Images by Minimized Hough Space Generation and Local Image Domain Analysis with Parallel Pixel Scanning," Int. Journal of Multimedia Technology (American V-King Scientific Publishing), Vol. 6, Issue 1, pp. 1-10, June 2016.

[03] **H. W. H. Premachandra**, Chinthaka Premachandra and C. D. Parape, "Parallel Scanning Based Speed-up Method for Detection of Elliptical Obstacles in High-resolution Image," International Journal of Computer Science and Communication Networks, Vol. 3, Issue 5, pp. 265-270, Nov. 2013. IF: 1.5

[04] **H. Waruna H. Premachandra**, T. Kimura and H. Kawanaka, Chinthaka Premachandra, "Artificial Neural Network Based Sinhala Character Recognition," Lecture Notes in Computer Science (Springer), Vol. 9972, pp. 594–603, 2016.

Journal Papers with Co-Authorship

[05] Chinthaka. Premachandra, T. Kimura, C. D. Parape, **H. W. H. Premachandra**, H. Kawanaka and N. P. Chandrasiri, "Fast Ellipse Enclosing Character Detection from Large-size Document Images Using Simultaneous Multi-Directional Searching and Parallel Pixel Scanning," IIEEJ Transactions on Image Electronics and Visual Computing, Vol. 3, Issue 2, pp.185-192, Dec. 2015.

[06] Chinthaka Premachandra, **H. W. H. Premachandra**, C. D. Parape and H. Kawanaka, "Road Crack Detection Using Color Variance Distribution and Discriminant Analysis for Approaching Smooth Vehicle Movement on Non-smooth Roads," International Journal of Machine Learning and Cybernetics (Springer), Vol. 6, Issue 4, pp. 545-553, Aug. 2015. IF: 3.844

[07] Chinthaka Premachandra, **H. W. H. Premachandra**, C. D. Parape and H. Kawanaka, "Parallel Layer Scanning Based Fast Dot/Dash Line Detection Algorithm for Large Scale Binary Document Images," Lecture Notes in Computer Science (Springer), Vol. 8814, pp. 395-402, Oct. 2014.

Conference Papers with First Authorship

[08] **H. W. H. Premachandra**, C. D. Parape and H. Kawanaka, Chinthaka Premachandra, "Speed-up Line Detection Approach for Large-Size Document Images by Parallel Pixel Scanning and Hough Space Minimization," Proc. of 10th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications, March 2016.

[09] **H. W. H. Premachandra**, Chinthaka Premachandra, H. Kawanaka and T. Kimura, "Character Recognition of Sinhala Scripts using Character Geometry Features and Artificial Neural Networks," Proc . of 7th Pacific Rim Symposium on Image and Video Technology, Nov. 2015.

- [10] **H. Waruna H. Premachandra** and H. Chinthaka N. Premachandra, "Font Independent Character Recognition System for Sinhala Scripts Using Character Geometry Features and Artificial Neural Networks," Proc. of 2013 International Workshop on Advanced Image Technology, Jan. 2013.

Conference Papers with Co-Authorship

- [11] M. Tsunoda, Chinthaka Premachandra, H. A. H. Y. Sarathchandra, K. L. A. N. Perera, I. T. Lakmal, and **H. W. H. Premachandra**, "Visible Light Communication by Using LED Array for Automatic Wheelchair Control in Hospital," Proc. of 2019 IEEE 23rd International Symposium on Consumer Technologies (ISCT), June 2019.
- [12] Chinthaka Premachandra, **H. W. H. Premachandra**, and C. D. Parape, "Image Based Automatic Road Surface Crack Detection for Achieving Smooth Driving on Deformed Roads," Proc. of IEEE International Conference on Systems, Man, and Cybernetics, pp. 4024-4029, Oct. 2013.
- [13] H. Chinthaka N. Premachandra, C. D. Parape and **H. W. H. Premachandra**, "A Study on Image Processing Based Road Crack Detection," Proc. of 2013 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing, March 2013.
- [14] Imaya Ranaweera, Susara S Thenuwara, **H Waruna H Premachandra**, Improved Flood Management and Risk Communication Through LLM, 2026 IEEE International Conference on Image Processing and Robotics (ICIPRoB)
- [15] Udara Aththanayaka, Thushari Silva, **H Waruna H Premachandra**, Helmet Detection in Automated Teller Machine Surveillance Using Machine Learning, 2026 IEEE International Conference on Image Processing and Robotics (ICIPRoB)
- [16] JMD Dinith Madushan, Susara S Thenuwara, **H Waruna H Premachandra**, Simulating Dynamic Formation Flying for Enhanced Satellite Communication, 2026 IEEE International Conference on Image Processing and Robotics (ICIPRoB)
- [17] Kanchana Chathurangi Ahangama, Hemali Pasqual, Chinthaka Premachandra, **H Waruna Haripriya Premachandra**, OptiBench: An Optical Distance Measurement Test Bench Using Adaptive Algorithm With Sensor Fusion and Environmental Shielding, IEEE Access Journal, Volume 13, Pages 11876-11891, Publication date 2025/1/14
- [18] Kanchana Chathurangi Ahangama, Hemali Pasqual, Chinthaka Premachandra, **H Waruna Haripriya Premachandra**, Enhanced Visible Light Communication for Real-Time Audio With Interference-Resilient Protocols, IEEE Access Journal, Volume 13, Pages 28248-28264, Publisher IEEE, Publication date 2025/2/4

Other Contributions to Research & Developments

Reviewer – SLAAI – ICAI 2019 to 2025 International Conferences

Reviewer – ICIPROb 2020 to 2026 International Conference

Reviewer - International Research Conference on Smart Computing and Systems Engineering, University of Kelaniya, Sri Lanka (SCSE) from 2018 to 2025

Co-Chair – SLAAI – ICAI 2019 to 2025 International Conferences

Co-Chair – ICIPROb 2020 to 2026 International Conference

Session Chair - 09th International Conference on Information Technology Research 2025, University of Moratuwa

Editor/Guest Editor

Around 70 articles / lessons written on General Information Technology (G.C.E A/L - Grade 12) for the subject of **Information Systems** for *Dinamina* Newspaper from 2007 – 2009 in collaboration with University of Colombo School of Computing and *Dinamina* Newspaper.

Duties / Responsibilities held

During my almost twenty four years of Academic & Academic Related Career since 2001 to Date, in three leading Academic Institutions in Sri Lanka, I have earned enough experience in carrying out below Duties & Responsibilities.

- Delivering Lectures in the Information Technology / Computer Science Related Subjects, leading to various Courses, Programs, Etc.
 - Active Participation in Teaching & Related work for wide range of IT and related courses
 - Holding various chair positions in international conferences / workshops / research congresses
 - Conducting Tutorial Classes
 - Coordinating Various Academic Activities
 - Organizing & Conducting Workshops
 - Working as a Mentor for Students & in some cases for Staff Members
 - Handling Examination & Related Matters
 - Supervising Students Projects
 - Coordinating & Conducting Short Courses
 - Involving for Software / Web Development Activities
 - Organizing Academic & Related Presentations
 - Assisting for Organizing Research Symposiums / Conferences / Etc.
 - Evaluating Assignments / Presentations / Student Projects
 - Operating Learning Management System (MOODLE)
 - Attending for Students Fields Visits etc.
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Non Related Referees

Will be provided up on request.

Declaration

I do hereby certify that the particulars submitted above are true and accurate to the best of my knowledge & belief.



20 / 06 / 2025

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Signature of Applicant

Date