

# Chathuranga Weeraddana

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<https://scholar.google.com/citations?user=WOXor3wAAAAJ&hl=en>

## 1. PERSONAL DETAILS AND THE DATE OF THE CV

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**Surname** Weeraddana  
**First Names** Pradeep Chathuranga  
**Date of the CV** 2022/02/12

## 2. DEGREES

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**University of Oulu** **Finland**  
*Doctor of Science, Telecommunication Engineering* 2011  
Contact (Address): University of Oulu, P.O. BOX 8000, FI-90014, University of Oulu, Finland  
Contact (Tel.): +358 294 480 000  
Contact (Fax): +358 8 344 064  
Contact (e-mail): university.of.oulu@oulu.fi

**Asian Institute of Technology** **Thailand**  
*Master of Engineering, Telecommunication Engineering* 2007

**University of Moratuwa** **Sri Lanka**  
*Bachelor of Science, Electronic and Telecommunication Engineering* 2004

## 3. OTHER EDUCATION AND EXPERTISE

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**The Open University of Sri Lanka** **Sri Lanka**  
*Induction Training for Senior Lecturers* 2019

**DeepLearning.AI** **USA**  
*Cert. in Neural Networks and Deep Learning* 2021  
(Offered through Coursera)

**DeepLearning.AI** **USA**  
*Cert. in Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization* 2021  
(Offered through Coursera)

**DeepLearning.AI** **USA**  
*Cert. in Structuring Machine Learning Projects* 2021  
(Offered through Coursera)

**Cisco Systems** **USA**  
*Cisco Certified Network Associate* 2005

## 4. LANGUAGE SKILLS

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**Native language** Sinhala  
**Other Language Skills** English, Fluent

## 5. CURRENT EMPLOYMENT

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**Dept. of Electronic & Telecommun. Engineering, University of Moratuwa** **Sri Lanka**  
*Senior Lecturer, Grade I* 2018 - To Date  
Stage of the academic research career: Third Tier

**Dept. of Electrical & Electronics Engineering, University of Peradeniya**  
*Visiting Lecturer*  
Working Mode: Part-Time

**Sri Lanka**  
2022/02 - To Date

## 6. PREVIOUS WORK EXPERIENCE

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**Dept. of Electrical & Computer Engineering, SLIIT**  
*Senior Lecturer, Higher Grade*

**Sri Lanka**  
2015 - 2018

**Dept. of Electrical & Electronics Engineering, University of Peradeniya**  
*Visiting Lecturer*  
Working Mode: Part-Time

**Sri Lanka**  
2020/09 - 2021/04

**Dept. of Electrical & Electronics Engineering, University of Peradeniya**  
*Visiting Lecturer*  
Working Mode: Part-Time

**Sri Lanka**  
2019/08 - 2020/06

**Dept. of Electrical & Electronics Engineering, University of Peradeniya**  
*Visiting Lecturer*  
Working Mode: Part-Time

**Sri Lanka**  
2019/01 - 2019/07

**Dept. of Electronic Engineering, Yangon Technical University**  
*Instructor, Postgraduate*  
Project: Telecom for YTU Project  
Program: Part of the postgraduate diploma in Telecommunications  
Offered by: University of Oulu, Finland  
Working Mode:  $\approx$  10 days Full-Time

**Myanmar**  
2019/08/19 - 2019/09/01

**Dept. of Electronic Engineering, Yangon Technical University**  
*Instructor, Postgraduate*  
Project: Telecom for YTU Project  
Program: Part of the postgraduate diploma in Telecommunications  
Offered by: University of Oulu, Finland  
Working Mode:  $\approx$  10 days Full-Time

**Myanmar**  
2018/09/10 - 2018/09/20

**Dept. of Electrical & Electronics Engineering, University of Peradeniya**  
*Visiting Lecturer*  
Working Mode: Part-Time

**Sri Lanka**  
2018/01 - 2018/04

**KTH Royal Institute of Technology**  
*ACCESS Postdoc Researcher*

**Sweden**  
2012-2014

## 7. CAREER BREAKS

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NA

## 8. RESEARCH FUNDING AND GRANTS

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**KTH Royal Institute of Technology**  
*Guest Researchers*

**Sweden**  
2021/03/01 - 2021/05/31

## 9. RESEARCH OUTPUT

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**Total number of publications, 2022/02/13**

**45**

- Journal article – refereed: 15
- Scientific book: 1
- Professional conference proceedings: 27
- Master’s and Doctoral dissertation thesis: 2

- S. Magnússon, **P. C. Weeraddana**, and C. Fischione, "A distributed approach for the optimal power flow problem based on admm and sequential convex approximations," *IEEE Transactions on Control of Network Systems*, vol. 2, no. 3, pp. 238–253, Oct. 2015.
- G. Athanasiou, **P. C. Weeraddana**, C. Fischione, and L. Tassiulas, "Optimizing client association for load balancing and fairness in millimeter-wave wireless networks," *IEEE/ACM Trans. Network.*, vol. 23, no. 3, pp. 836–850, Mar. 2014.
- S. Magnússon, **P. C. Weeraddana**, M. Rabbat, and C. Fischione, "On the convergence of alternating direction lagrangian methods for nonconvex structured optimization problems," *IEEE Transactions on Control of Network Systems*, vol. 3, no. 3, pp. 296–309, Oct. 2016.
- S. Joshi, **P. C. Weeraddana**, M. Codreanu, and M. Latva-aho, "Weighted sum-rate maximization for MISO downlink cellular networks via branch and bound," *IEEE Trans. Signal Processing*, vol. 60, no. 4, pp. 2090–2095, Apr. 2012.
- **P. C. Weeraddana**, M. Codreanu, M. Latva-aho, and A. Ephremides, "Resource allocation for cross-layer utility maximization in wireless networks," *IEEE Transactions on Vehicular Technology*, vol. 60, no. 6, pp. 2790–2809, July 2011.
- **P. C. Weeraddana**, M. Codreanu, M. Latva-aho, A. Ephremides, and Carlo Fischione, "Weighted sum-rate maximization in wireless networks: A review," *Foundations and Trends in Networking, Now Publishers Inc.*, vol. 6, no. 1-2, pp. 1–163, 2012.
- **P. C. Weeraddana**, M. Codreanu, M. Latva-aho, and A. Ephremides, "Weighted sum-rate maximization for a set of interfering links via branch and bound," *IEEE Trans. Signal Processing*, vol. 59, no. 8, pp. 3977–3996, Aug. 2011.
- **P. C. Weeraddana**, M. Codreanu, M. Latva-aho, and A. Ephremides, "Multicell downlink weighted sum-rate maximization: A distributed approach," *IEEE Trans. Signal Processing*, vol. 61, no. 3, pp. 556–570, February 2013.
- G. Athanasiou, **P. C. Weeraddana**, and C. Fischione, "Auction-based resource allocation in millimeterwave wireless access networks," *Communications Letters, IEEE*, vol. 17, no. 11, pp. 2108–2111, Nov. 2013.
- **P. C. Weeraddana**, M. Codreanu, M. Latva-aho, and A. Ephremides, "On the effect of self-interference cancelation in multihop wireless networks," *EURASIP Journal on Wireless Communications and Networking*, vol. 2010, Article ID 513952, 10 pages, 2010, doi:10.1155/2010/513952.

## 10. RESEARCH SUPERVISION AND LEADERSHIP EXPERIENCES

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- **Hansi Abeynanda**: I am acting as the main supervisor of the student.
  - Thesis: Distributed Consensus with Dual Decomposition Methods Under Additive and Bounded Errors
  - Level: Master of Philosophy
  - Place/Year: University of Sri Jayewardenepura, Sri Lanka, Ongoing
  - Link: NA
- **Nishal De Silva**: I was acting as the supervisor of the student.
  - Thesis: On Musical Onset Detection via the S-Transform
  - Level: Masters
  - Place/Year: SLIIT, Sri Lanka, 2017
  - Link: [https://chathurangaw.staff.uom.lk/files/MSc\\_Nishal.pdf](https://chathurangaw.staff.uom.lk/files/MSc_Nishal.pdf)
- **Nipuna Weeratunge**: I was acting as the supervisor of the student.

- Thesis: Controlling Non-Playable Characters (NPC) in Video Games Using Local Knowledge
- Level: Masters
- Place/Year: SLIIT, Sri Lanka, 2016
- Link: [https://chathurangaw.staff.uom.lk/files/MSc\\_Nipuna.pdf](https://chathurangaw.staff.uom.lk/files/MSc_Nipuna.pdf)
- **Shehan Dharmadasa:** I was acting as the supervisor of the student.
  - Thesis: Application of Attractor Reconstruction to Epileptic Seizure Onset Detection
  - Level: Masters
  - Place/Year: SLIIT, Sri Lanka, 2016
  - Link: [https://chathurangaw.staff.uom.lk/files/MSc\\_Shehan.pdf](https://chathurangaw.staff.uom.lk/files/MSc_Shehan.pdf)
- **Sindri Magnússon:** I was acting as a postdoctoral advisor of the student during the first year of his studies. My name is not officially documented. However, one may check the Acknowledgments section of the licentiate thesis or contact Prof. Carlo Fischione (carlofi@kth.se) for verification.
  - Thesis: A Distributed Approach to the Optimal Power Flow Problem and Its Privacy Properties
  - Level: PhD (First year)
  - Place/Year: KTH Royal Institute of Technology, Sweden, 2016
  - Link: <http://kth.diva-portal.org/smash/get/diva2:898752/FULLTEXT02.pdf>
- **Sindri Magnússon:** I was acting as the postdoctoral advisor of the student. My name is not officially documented. However, one may contact Prof. Carlo Fischione (carlofi@kth.se) for verification.
  - Thesis: A Distributed Approach to the Optimal Power Flow Problem and Its Privacy Properties
  - Level: Masters
  - Place/Year: KTH Royal Institute of Technology, Sweden, 2013
  - Link: <http://kth.diva-portal.org/smash/get/diva2:644629/FULLTEXT01.pdf>
- **Elisabetta Alfonsetti:** I was acting as the postdoctoral advisor of the student. My name is not officially documented. However, one may contact Prof. Carlo Fischione (carlofi@kth.se) for verification.
  - Thesis: Privacy Preserving Car-Parking: A Distributed Approach
  - Level: Masters
  - Place/Year: KTH Royal Institute of Technology, Sweden, 2012
  - Link: <http://www.diva-portal.org/smash/get/diva2:602597/FULLTEXT02.pdf>
- **Umberto Mosca:** I was acting as the postdoctoral advisor of the student. My name is not officially documented. However, one may contact Prof. Carlo Fischione (carlofi@kth.se) for verification.
  - Thesis: A Novel Distributed Approach for Optimal Power Flow Problem in Smart Grids
  - Level: Masters
  - Place/Year: KTH Royal Institute of Technology, Sweden, 2012
  - Link: <http://www.diva-portal.org/smash/get/diva2:602608/FULLTEXT02>

## 11. TEACHING MERITS

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- **Pedagogical training:** Completed the mandatory Induction Training course at the Staff Development Centre, the Open University of Sri Lanka in 2019. Key expertise obtained during the course are as follows:
  - traditional didactic pedagogic model
  - outcomes-based education (OBE)
  - scaffolding

- constructive alignment
  - constructivism
  - curriculum mapping and design
  - program design
  - assessments
- **Other demonstrated pedagogical expertise:** Did bear the responsibilities as a member of
    - Accreditation Committee (Faculty of Eng., SLIIT, Sri Lanka, 2016)
    - Curriculum Development Committee (Faculty of Eng., SLIIT, Sri Lanka, 2016)
    - Quality Assurance Committee (Faculty of Eng., University of Moratuwa, Sri Lanka, 2021)
  - **Developing teaching material (Undergraduate Level):** Did bear the responsibilities of developing modules
    - Introduction to Engineering Optimization (sole responsibility, Faculty of Eng., University of Moratuwa, Sri Lanka, 2020)
    - Convex Engineering Design (sole responsibility, Faculty of Eng., University of Moratuwa, Sri Lanka, 2020)
    - Traffic Engineering (partial responsibility, Dept. of Electronic & Telecommun. Engineering, University of Moratuwa, Sri Lanka, 2020)
  - **Developing teaching material (Graduate Level):** Did bear the responsibilities of developing modules
    - Optimization in Communication Systems (sole responsibility, Dept. of Electrical & Electronics Engineering, University of Peradeniya, Sri Lanka, 2018)
    - Mathematical Optimization (sole responsibility, Dept. of Electronic Engineering, Yangon Technical University, Myanmar, 2018)
  - **Teaching experience in general:** Teaching is not an easy task. One must have the necessary dedication, passion, and reflections for the continuous development of the teaching material.

## 12. AWARDS AND HONOURS

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- Sri Lankan President's **Award for Scientific Publications** for Highly Rated Scientific Research, 2018
- Sri Lankan President's **Award for Scientific Publications** for Highly Rated Scientific Research, 2016
- **Among 1 of the 3** Post-Doctoral Fellows selected from ACCESS Linnaeus Centre, KTH Royal Institute of Technology, Sweden, 2012
- **Best Doctoral Thesis**, Dept. of Comm. Eng., University of Oulu, Finland, 2011
- **Second best paper award**, Asilomar Conference on Signals, Systems and Circuits 2010
- Graduate School in Electronics, Telecommunications and Automation (**GETA**) **grant** for a 4 years of graduate school position in University of Oulu, Finland, 2011
- **Personal research grants:** from research foundations Tauno Tönning Säätiö, Nokia, Olun yliopistin Tuksäätiö, and Tekniikan Edistämissäätiö Stiftelsen
- **The AIT Alumni Association Prize in recognition of the most outstanding academic performance** among students in the School of Engineering and Technology, AIT, Thailand, 2007
- **The Sonera prize in recognition of the most outstanding academic performance among students in Telecommunication**, AIT, Thailand, 2007
- **Kings Scholarship for Education of Asia**, from His Majesty King Bhumibol Adulyadej of Thailand, 2005
- **Mahapola Higher Education (Merit) Scholarship**, from the Mahapola Higher Education Scholarship Trust Fund, 1999/2000

### 13. OTHER KEY ACADEMIC MERITS

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- International Relation Co-Chair of the **IEEE MERCon 2022**, Multidisciplinary Engineering Research Conference, organized by University of Moratuwa, Sri Lanka, 2022
- A guest speaker in the **Special Session on '5G Evolution and 6G'** of the 16th international conference on Industrial and Information Systems (ICIIS) 2021
- An evaluator of a research proposal submitted to the Faculty of Applied Sciences, University of Sri Jayawardenapura, Sri Lanka, 2021
- A member of the **Engineering Research Unit, University of Moratuwa, Sri Lanka** for the years 2018-2021
- An evaluator of a research proposal submitted to the Faculty of Applied Sciences, University of Sri Jayawardenapura, Sri Lanka, 2021
- Certificate of appreciation as an **Exemplary Reviewer** of IEEE Wireless Communications Letters, 2020
- Publication Co-Chair of the **IEEE MERCon 2020**, Multidisciplinary Engineering Research Conference, organized by University of Moratuwa, Sri Lanka, 2020
- A Session Chair of the **IEEE Region 10 Humanitarian Technology Conference 2018**
- A Co-Chair of the **National Conference on Technology and Management 2016**, organized by the Research Center, SLIIT, Sri Lanka
- One of the chair person of the **Orientation Committee** of the Faculty of Engineering, SLIIT, Sri Lanka, 2016
- A reviewer of the journals IEEE Transactions of Communications, IEEE Wireless Communications Letter, IEEE Transactions of Signal Processing, and IEEE Transactions of Wireless Communications, among others

### 14. SCIENTIFIC AND SOCIETAL IMPACT

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NA

### 15. OTHER MERITS

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- A guest speaker in the **Mathematics Day** of Mahinda Rajapaksha College, Homagama, Sri Lanka, 2018. My responsibility was to enlighten the high school students by highlighting the importance of Mathematics in engineering designs.
- A member of the **Future Minds Career Counselling Program**, Future Minds 2017, National Higher Educational and Career Exhibition, Sri Lanka, 2017. My responsibility was to foster the ambitious, innovative youth of Sri Lanka highlighting future prospects of their career.