

Charith FERNANDO



Personal Information

4th March 1983
Sri Lankan Passport
Driving License C/C1

Contact

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Meguro-ku, Tokyo,
Japan, 152-0001

Languages

English (Fluent)
Japanese (Fluent)
Sinhalese (Native)

Programming Languages

♥ VC++, GCC, VC .NET,
MATLAB, SCILAB, Bash
Scripting
♦ (Embedded) ANSI C GCC,
Verilog, VHDL

Software Tools

♥ Altium Designer, Xilinx
Vivado/ISE, ARM Keil® MDK5
♦ Inventor Professional,
Solidworks, Fusion 360
♦ Adobe Creative Cloud, Git,
LaTeX

Web Development

Wordpress, Joomla,
Bootstrap, HTML5, CSS3,
JavaScript/PHP/jQuery,
MySQL

Other Skills

♥ Network Server
Administration (Cisco),
Still/Video Shooting

Resume

I'm currently the CTO at **Telexistence Inc.** and responsible for disruptive technology growth at the company. Also manages and guides the research development team, intellectual property and talent acquisition which will help technology and business growth.

Previously a project senior assistant professor at **Keio University**, received his Ph.D. (2013) and Masters (2010) from **Keio University**, Graduate School of Media Design Tokyo, Japan and earned his bachelor's degree from the **University of Moratuwa**, Faculty of Engineering, Sri Lanka. In 2017, Charith co-founded Telexistence Inc. with the aim of commercializing Telexistence Technology based on his extensive experience during Ph.D work, **Telesar 5**.

Professional Experience

2017–present	Telexistence Inc. <i>Co-founder & CTO</i>	Tokyo, Japan
	Responsible for disruptive technology growth at the company. managing and guiding the research development team	
2013–2017	Keio University, Graduate School of Media Design <i>Project Senior Assistant Professor</i>	Tokyo, Japan
	– Telexistence Project Under Embodied Media (Sep 2013 – Sep 2017) – NEDO-Obayashi Telexistence Surveillance Project (Sep 2014 – March 2017) – NISSAN Motors Telexistence Project (Sep 2013 – Sep 2015)	
2008–2017	Japan Science and Technology Agency (JST) <i>Research Fellow</i>	Tokyo, Japan
	– ACCEL Haptic Media Project (April 2014 – Sep 2017) – CREST Embodied Media Project (Sep 2013 – Sep 2017) – ERATO Igarashi Design Interface Project (Nov 2008 - Apr 2012)	
2010–2015	InMojo Inc. <i>Co-Founder & CEO</i>	Delaware, USA
2008–2008	National University of Singapore, Interactive and Digital Media Institute <i>Research Engineer</i>	Singapore
2006–2006	Nanyang Technological University & National University of Singapore <i>Undergraduate Internship</i>	Singapore
	– Mixedreality Lab, National University of Singapore – Research Techno Plaza, Nanyang Technological University, Singapore	

Education

2010–2013	Ph.D. in Media Design	Graduate School of Media Design, Keio University, Tokyo, Japan
2008–2010	Masters in Media Design	Graduate School of Media Design, Keio University, Tokyo, Japan
2003–2007	B.Sc(Hons) Degree in Electronic and Telecommunication Engineering	University of Moratuwa, Sri Lanka

Skills and Interests

Skills

- Robotics: ROS, OpenRAVE, Full Body Inverse Kinematics, Path Planning & Motion Dynamics
- Embedded Design: Altium Designer, SMT 0201, FPC/FFC, Rigid Flex
- Firmware Development: AVR, PIC32, STM32, FPGA, ASIC, PLC, ARM Linux
- Mechanical design with CAD/CAM/CAE
- Programming (Linux/Windows) VC++, VC, GCC

Interests

- Ungrounded Haptics (Integrated Miniature Haptic Sensors & Wearable Haptic Displays)
- Ultra Low Latency Encode/Decode & on-chip Steaming System Design
- High Speed, High Current DC Servo Motor Drive System Design

Awards and Prizes

- 2016 **Honorable Mention & Best Demo Award** 20th International Conference on Artificial Reality and Telexistence, for the paper
MHD Yamen Sarajji, Charith Lasantha Fernando, Kouta Minamizawa, and Susumu Tachi, Development of Mutual Telexistence System using Virtual Projection of Operators Egocentric Body Images
- 2015 **Best Demonstration Award** 6th Augmented Human International Conference, Singapore, for the paper
MHD Yamen Sarajji, Charith Lasantha Fernando, Kouta Minamizawa, and Susumu Tachi. 2015. "Mutual hand representation for telexistence robots using projected virtual hands"
- 2013 **Honorable Mention Award** 23rd International Conference on Artificial Reality and Telexistence Conference, Tokyo, Japan, for the paper
C. L. Fernando, M. Furukawa, K. Minamizawa and S. Tachi, "Experiencing ones own hand in telexistence manipulation with a 15 DOF anthropomorphic robot hand and a flexible master glove"
- 2012 **Best Student Paper Award finalist and Best Application Paper Award finalist** IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2012, Vilamoura, Portugal, for the paper
C. L. Fernando et al., "Design of TELESAR V for transferring bodily consciousness in telexistence"
- 2008 **Monbukagakusho "MEXT" Scholarship** Japanese Government
AY 2010 – 2013
- 2008 **Design the Future Award for International Students** Keio University
AY 2008 – 2010
- 2008 **Silver Medallist and Distinguished Genius Medal of Hungarian Republic** 36th International Exhibition of Inventions 2008 in Geneva for
Undergraduate final year project "Sensor-Based Motion Tracking System for Human-Computer Interaction"

Publications

Patents

- "Image presentation device and mask generation device to be used for the same" (2015). Patent JP 2015-172900A (JP). URL: <https://patents.google.com/patent/JP2015172900A>.
- "Indirect-view presentation device" (2016). Patent WO2016152572A1 (FR, JP). URL: <https://patents.google.com/patent/WO2016152572A1/>.

Journal Publications

- Cheok, Adrian David et al. (2009). "Energy and touch-information for body-worn ubiquitous computing". In: International journal of energy technology and policy 7.2, pp. 137–166.

Conference Proceedings

- Feng, Yuan-Ling et al. (2017). "Submerged haptics: a 3-DOF fingertip haptic display using miniature 3D printed airbags". In: ACM SIGGRAPH 2017 Emerging Technologies. ACM, p. 22.
- Fernando, Charith Lasantha, Masahiro Furukawa, Tadatoshi Kurogi, Kyo Hirota, et al. (2012). "TELESAR V: TELEXistence surrogate anthropomorphic robot". In: ACM SIGGRAPH 2012 Emerging Technologies. ACM, p. 23.
- Fernando, Charith Lasantha, Masahiro Furukawa, Tadatoshi Kurogi, Sho Kamuro, et al. (2012). "Design of TELESAR V for transferring bodily consciousness in telexistence". In: Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International Conference on. IEEE, pp. 5112–5118.
- Fernando, Charith Lasantha, Masahiro Furukawa, Kouta Minamizawa, et al. (2013). "Experiencing ones own hand in telexistence manipulation with a 15 DOF anthropomorphic robot hand and a flexible master glove". In: Artificial Reality and Telexistence (ICAT), 2013 23rd International Conference on. IEEE, pp. 20–27.
- Fernando, Charith Lasantha, MHD Yamen Sarajji, et al. (2015). "Effectiveness of Spatial Coherent Remote Drive Experience with a Telexistence Backhoe for Construction Sites." In: ICAT-EGVE, pp. 69–75.
- Sarajji, MHD et al. (2015). "Mutual hand representation for telexistence robots using projected virtual hands". In: Proceedings of the 6th Augmented Human International Conference. ACM, pp. 221–222.
- Sasaki, Tomoya et al. (2017). "MetaLimbs: multiple arms interaction metamorphism". In: ACM SIGGRAPH 2017 Emerging Technologies. ACM, p. 16.
- Tachi, Susumu et al. (2012). "Telexistence—from 1980 to 2012". In: Intelligent Robots and Systems (IROS), 2012 IEEE/RSJ International Conference on. IEEE, pp. 5440–5441.
- Yanagi, Takura et al. (2015). "Transparent cockpit using telexistence". In: 2015 IEEE Virtual Reality (VR). IEEE, pp. 311–312.