# Suranga NANAYAKKARA

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## PROFESSIONAL EXPERIENCE

**Associate Professor** **2022 - Present**
Department of Information Systems & Analytics, School of Computing, National University of Singapore.

**Honorary Professor** **2022 - Present**
Auckland Bioengineering Institute, University of Auckland.

**Co-Founder & Director** **2020- Present**
Kiwrious Limited, New Zealand.

**Co-Founder & Director** **2018- Present**
SayHello Pvt Ltd., Sri Lanka.

**Founder** **2016- Present**
DT@SL initiative, Sri Lanka.

**Academic Advisor** **2014- Present**
CreateLab, Pte Ltd., Singapore.

**HCI Fellow** **2021- Present**
Mercari Pvt Ltd., Japan.

**Associate Professor** **2018 - 2022**
Auckland Bioengineering Institute, University of Auckland.

**Tan Chin Tuan Exchange Fellow** **2019**
School of Computer Science and Engineering, Nanyang Technological University.

**Assistant Professor** **2011 - 2018**
Engineering Product Development Pillar, Singapore University of Technology and Design.

**Co-Founder & Director** **2019- 2022**
Maia Limited, New Zealand.

**Trustee** **2019- 2021**
Linked Horizons, New Zealand.

**External Examiner** **2013 - 2018**
Automation & Mechatronic Systems Course, Ngee Ann Polytechnic, Singapore.

**Consultant** **2015 - 2016**
David Peiris Group, Sri Lanka.

**Associate Faculty** **2012 - 2014**
School of Science and Technology, SIM University, Singapore.

**Visiting Assistant Professor** **2011-2012**
Fluid Interfaces Group, MIT Media Lab. Collaborated with Prof. Pattie Maes

**Research Fellow** **2011**
Interactive and Digital Media Institute, National University of Singapore. Advised by Prof. Lonce Wyse.

**Postdoctoral Associate** **2010-2011**
Fluid Interfaces Group, MIT Media Lab. Advised by Prof. Pattie Maes.

**Research Engineer** **2009-2010**
Marine Mammal Research Laboratory, National University of Singapore.

## EDUCATION

**Ph.D., Engineering** **2005 - 2009**
Department of Electrical & Computer Engineering, National University of Singapore.
Completed a 6-month research attachment at the Music Computation and Cognition (MuCoaCo) Laboratory, University of Southern California. Advised by Prof. Elaine Chew
Thesis: Enhancing Musical Experience for the Hearing-impaired using Visual and Haptic Feedback
Advisors: Dr. Elizabeth Taylor, Prof Lonce Wyse, Prof Ong Sim Heng

**BEng. (*1st class honours*)** **2001 - 2005**
Department of Electrical & Computer Engineering, National University of Singapore.
Completed a one semester Student Exchange Program at University of Birmingham, UK.
Field of Specialisation: Electrical & Computer Engineering

**G.C.E. Advanced Level** **2000**
Royal College, Colombo 7, Sri Lanka. Obtained the countrywide 5th rank out of 180,000 candidates

## HONORS & AWARDS

**Excellence in Graduate Supervision** **2021**
Awarded by Auckland Bioengineering Institute, in recognition of outstanding achievements across the various dimensions of excellence in supervision including the extent and range of supervision activities; the positive outcomes for students; and broader contribution to the development of supervisory practice across the University.

**Excellence in Research Translation** **2021**
Awarded by Auckland Bioengineering Institute, in recognition of Project Kiwrious (`www.kiwrious.com`).

**Best Short Paper Award, IDC'21** **2021**
In recognition of the research paper 'Sensor-Based Interactive Worksheets to Support Guided Scientific Inquiry' presented at the 20th ACM Conference on Interaction Design and Children (IDC21).

**Silver Award (Public Good) by Designers Institute of New Zealand, Best Design Awards** **2021**
In recognition of project Kiwrious.

**Bronze Award (Value of Design) by Designers Institute of New Zealand, Best Design Awards** **2021**
In recognition of project Kiwrious.

**Bronze Award (User Experience) by Designers Institute of New Zealand, Best Design Awards** **2021**
In recognition of project Kiwrious.

**Good Design Award Winner (Social Impact Category), Good Design Awards by Good Design Australia** **2021**
In recognition of the project Kiwrious.

**Honorable Mention (APAC Category), World Changing Ideas Awards by FastCompany** **2021**
In recognition of the project Kiwrious.

**Finalist (Education Category), World Changing Ideas Awards by FastCompany** **2021**
In recognition of the project Kiwrious.

**Research Excellence Medal** **2020**
Awarded by University of Auckland, in recognition of individuals who have made an outstanding contribution to one or more disciplines

**Winner (Social Entrepreneurship Category), Velocity 100K Challenge, University of Auckland** **2020**
In recognition of the start-up Kiwrious Pvt Ltd.

**Gold Award (Lighting Design) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of project Pride in Lights .

**Gold Award (Exhibitions & Temporary Structures) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of project Pride in Lights .

**Gold Award (Exhibitions & Temporary Structures) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of project LightTank . **2020**

**Gold Award (Student Digital) by Designers Institute of New Zealand, Best Design Awards**
In recognition of research project Prospero.

**Silver Award (Student Digital) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of research project Jammify.

**Bronze Award (Student Spatial) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of research project Jammify.

**Bronze Award (Student Digital) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of research project GymSoles.

**Bronze Award (User Experience) by Designers Institute of New Zealand, Best Design Awards** **2020**
In recognition of project Maia.

**Winner (Best Design APAC Category), Innovation by Design Awards by FastCompany** **2020**
In recognition of the digital platform BadGood.

**Finalist (Apps and Games Category), Innovation by Design Awards by FastCompany** **2020**
In recognition of the digital platform BadGood.

**Finalist (Best Design APAC Category), Innovation by Design Awards by FastCompany** **2020**
In recognition of the research project Lemo.

**Honorable Mention (Experimental Category), Innovation by Design Awards by FastCompany** **2020**
In recognition of the research project Lemo.

**Honorable Mention (APAC Category), World Changing Ideas Awards by FastCompany** **2020**
In recognition of the research project M-Hair.

**Honorable Mention (Experimental Category), World Changing Ideas Awards by FastCompany** **2020**
In recognition of the research project M-Hair.

**Finalist (Student Category), World Changing Ideas Awards by FastCompany** **2020**
In recognition of the research project M-Hair.

**Honorable Mention (Student Category), World Changing Ideas Awards by FastCompany** **2020**
In recognition of the research project Prospero.

**Public Good Award (Gold) by Designers Institute of New Zealand, Best Design Awards** **2019**
In recognition of research project MussBits.

**Honorable Mention (Student Category), Innovation By Design Award by FastCompany** **2019**
In recognition of the research project MussBits.

**Finalist (Best Design APAC Category), Innovation By Design Award by FastCompany** **2019**
In recognition of the research project ChewIt.

**Finalist (Experimental Category), Innovation By Design Award by FastCompany** **2019**
In recognition of the research project ChewIt.

**Finalist (Student Category), Innovation By Design Award by FastCompany** **2019**
In recognition of the research project ChewIt.

**Honorable Mention (General Excellence Category), Innovation By Design Award by FastCompany** **2019**
In recognition of the research project ChewIt.

**Peoples choice award of Discovery video competition by Royal Society Te Aprangi** **2018**
In recognition of the video of FingerReader.

**Finalist, World Changing Ideas Award by FastCompany** **2018**
In recognition of the research project FingerReader.

**Best Short Paper Award, iWOAR '18** **2018**
In recognition of the research paper Exploring Accelerometer-based Step Detection by using a Wheeled Walking Frame

**Finalist, D&AD Impact Awards by D&AD** **2017**
In recognition of the research project FingerReader.

**Finalist, Golden Pin Design Awards by Taiwan Design Center** **2017**
In recognition of the research project FingerReader.

**Best Short Paper Award, AH'17** **2017**
In recognition of the research paper 'InSight: A Systematic Approach to Create Dynamic Human-Controller-Interactions'

**Excellence in Research** **2016**
Awarded by SUTD, in recognition of research excellence over a period of time with impact in scholarly field, interdisciplinary contributions across fields, broader impact to society, translation to practice, commercialisation, and teaching practice.

**INK Fellow** **2016**
Awarded by INK, which is India's foremost platform for the exchange of cutting-edge ideas and inspiring stories. Every year, INK identifies the minds that are redefining their field of work, and the world around them.

**Most Promising Technology Award** **2016**
Awarded for the Project zSense at InnoveFest unBound 2016, South East Asia's largest innovation festival.

**Singapore Design Award (Product - Gold Category)** **2016**
Awarded for the Project FingerReader by Design Business Chamber Singapore.The Singapore Design Awards (SDA) honours outstanding designers, design students and design practices from across the world and it remains the leading design award in Southeast Asia.

**Steve Howard Award for Best Paper, OZCHI'16** **2016**
In recognition of the research paper 'MuSS-Bits: Sensor-Display Blocks for Deaf People to Explore Musical Sounds.' presented at the 27th Annual CHISGI Australian Computer-Human Interaction Conference.

**The Ten Outstanding Young Persons of Sri Lanka (TOYP)** award **2015**
An award given by Junior Chamber International Sri Lanka for outstanding achievement in Scientific and Technological Development.

**Young Innovator under 35 (MIT TR35)** award, Asia Pacific region **2014**

An award given by MIT Technology Review for top young innovators under the age of 35.

**Best Paper, OZCHI'14** **2014**
In recognition of the research paper 'PaperPixels : A Toolkit to Create Paper-based Displays' presented at the 25th Annual CHISGI Australian Computer-Human Interaction Conference.

**Finalist, Singapore Challenge, GYSS'14** **2014**
In recognition of the white paper 'Smart adaptive interfaces for ageing gracefully' submitted to Global Young Scientist Summit 2014.

**NUS Research Scholarship** **2005-2009**
A full scholarship awarded by the National University of Singapore to pursue Doctoral research.

**Most Valuable Player (MVP) of the year** **2008**
Awarded in recognition of outstanding contribution towards the promotion of cricket in the National University of Singapore.

**Engineering Dean's List of Excellence** **2002**

Awarded by National University of Singapore in recognition of the outstanding academic results.

**NUS Undergraduate Scholarship** **2001-2005**
A full scholarship awarded by the National University of Singapore to pursue undergraduate studies.

**Best Student of the College (academic)** **2000**
Awarded by Royal College, Sri Lanka in recognition of the best overall academic results in all academic streams in the school and GCE A level Examination results.

## PUBLICATIONS

h-index:20 | Citations: 1687
Source: Google Scholar (https://scholar.google.com.sg/citations?user=G0JugenpCgwC)

### Books & Book Chapters

1. Huber, J., Shilkrot, R., Maes, P. and **Nanayakkara, S. C.** 2018. *Assistive Augmentation* (Edited volume on Cognitive Science and Technology book series). Springer, ISBN-10: 9789811064029.
2. Shilkrot, R., Huber, J., Boldu, R., Maes, P., and **Nanayakkara, S. C.** FingerReader: A Finger-Worn Assistive Augmentation. In **Nanayakkara, S. C.**, Huber, J. and Maes, P (eds), *Assistive Augmentation*. Springer, 2018, 151–175.
3. Petry, B., Huber, J., and **Nanayakkara, S. C.** Scaffolding the Music Listening and Music Making Experience for the Deaf. In **Nanayakkara, S. C.**, Huber, J. and Maes, P (eds), *Assistive Augmentation*. Springer, 2018, 23–48.
4. **Nanayakkara, S. C.**, Huber, J., and Sridhar, P. Augmented Sensors. In **Nanayakkara, S. C.**, Huber, J. and Maes, P (eds), *Assistive Augmentation*. Springer, 2018, 7–21.

### Peer-reviewed Journal Papers

1. Messerschmidt M. A., Muthukumarana S., Hamdan N. A., Wagner A., Zhang H., Borchers J., and **Nanayakkara, S. C.** 2022. ANISMA: A Prototyping Toolkit to Explore Haptic Skin Deformation Applications Using Shape-Memory Alloys. ACM Transactions on Computer-Human Interaction (ToCHI), 29, 3, Article 19.
2. Elvitigala, D.S., Boldu, R., Matthies D. J. C. **Nanayakkara, S.C.** 2022. TickleFoot: Design, Development and Evaluation of a Novel Foot-tickling Mechanism that Can Evoke Laughter. ACM Transactions on Computer-Human Interaction (ToCHI), 29, 3, Article 20.
3. Dissanayake, V., Seneviratne, S., Rana, R., Wen, E., Kaluarachchi, T. and **Nanayakkara, S.C.** 2022. SigRep: Toward Robust Wearable Emotion Recognition With Contrastive Representation Learning, in IEEE Access, vol. 10, pp. 18105-18120.
4. Samantha, W. T. C., Gunasekaran, T. S., Pai, Y. S., Zhang, H. and **Nanayakkara, S. C.** 2021. KinVoices: Using Voices of Friends and Relatives in Voice Interfaces. ***Proceedings of the ACM on Human Computer Interaction (PACM HCI)***, 5, CSCW2, Article 446.
5. Kaluarachchi,T., Reis, A. and **Nanayakkara, S. C.** 2021. A Review of Recent Deep Learning Approaches in Human-Centered Machine Learning. ***Sensors***, *21* (7), 2514.
6. Samantha, W. T. C., Sapkota, S., Mathews, R., Zhang, H. and **Nanayakkara, S. C.** 2020. Prompto: Investigating Receptivity to Prompts Based on Cognitive Load from Memory Training Conversational Agent. ***J. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies***, *4* (4), Article 121.
7. Boldu, R., Matthies, D.J., Zhang, H. and **Nanayakkara, S. C.** 2020. AiSee: An Assistive Wearable Device to Support Visually Impaired Grocery Shoppers. ***J. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies***, *4* (4), Article 119.

   Siriwardhana, S., Kaluarachchi, T., Billinghurst, M., and **Nanayakkara, S. C.** 2020. Multimodal Emotion Recognition With Transformer-Based Self Supervised Feature Fusion. ***IEEE Access,***, *8*, 176274-176285.
8. Sridhar, P. and **Nanayakkara, S. C.** 2020. Progression of Cognitive-affective States During Learning in Kindergarteners: Bringing Together Physiological, Observational and Performance Data. ***Educational Technology***, MDPI, *10* (7), 177.
9. Yilei, S., Zhang, H., Zhao, K., Cao, J., Sun, M. and **Nanayakkara, S. C.** 2020. Ready, Steady, Touch! - Sensing Physical Contact with a Finger-Mounted IMU. ***J. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies***, *4* (2) Article 59 .
10. Elvitigala, D.S., Matthies, D. J. C. and **Nanayakkara, S. C.** 2020. StressFoot: Uncovering the Potential of the Foot for Acute Stress Sensing in Sitting Posture. ***Intelligent Sensors***, MDPI, *20* (10), 2882.
11. Samantha, W. T. C., Buddhika, T., Zhang, H. and **Nanayakkara, S. C.** 2019. ProspecFit: In Situ Evaluation of Digital Prospective Memory Training for Older Adults. ***J. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies***, *3* (3), Article 77.
12. Priyashri, K. S., Samantha, W. T. C., Chua, Y., Quin, Y. W. and **Nanayakkara, S. C.** 2019. Going beyond performance scores: Understanding cognitive-affective states in Kindergarteners and application of framework in classrooms. ***International Journal of Child-Computer Interaction***, *21*, 37–53.

13. Boldu, R., Dancu, A, Matthies, D. J. C., Buddhika, T., Siriwardhana, S. and **Nanayakkara, S. C.** 2018. FingerReader2.0: Designing and Evaluating a Wearable Finger-Worn Camera to Assist People with Visual Impairments while Shopping. ***J. ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies***, *2* (3), Article 94.
14. Pablo, J., Fernando, P., Sridhar, P., Withana, A., **Nanayakkara, S. C.**, Steimle, J. and Maes, P. 2016. PostBits: using contextual locations for embedding cloud information in the home. ***Personal and Ubiquitous Computing***, 1-14.
15. Shilkrot, R., Huber, J., Steimle, J., **Nanayakkara, S. C.** and Maes, P. 2015. Digital Digits: A Comprehensive Survey of Finger Augmentation Devices. ***ACM Computing Survey***, *48* (2), Article 30.
16. Zoran, A., Shilkrot, R., **Nanayakkara, S. C.** and Paradiso, J. 2014. The Hybrid Artisans: A Case Study in Smart Tools. ***ACM Transactions on Computer-Human Interaction (ToCHI)***, *21* (3), 1-29.
17. **Nanayakkara, S. C.**, Wyse, L., Ong, S. H. and Taylor, E. 2013. Enhancing Musical Experience for the Hearing-impaired using Visual and Haptic Inputs. ***Human-Computer Interaction***, *28* (2), 115-160.

## Peer-reviewed Conference Papers (Long Papers)

1. Suriyaarachchi, H., Denny, P., Cortes, J. P. F. C., Weerasinghe, C. and **Nanayakkara, S. C.** 2022. Primary School Students Programming with Real-Time Environmental Sensor Data. In Australasian Computing Education Conference (ACE '22). Association for Computing Machinery, New York, NY, USA, 85-94.
2. Suriyaarachchi, H., Denny, P. and **Nanayakkara, S. C.** 2022. Scratch and Sense: Using Real-Time Sensor Data to Motivate Students Learning Scratch. In Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 1 (SIGCSE 2022). Association for Computing Machinery, New York, NY, USA, 983-989.
3. Muthukumarana, S., Messerschmidt, M. A., Matthies, D. J. C., Steimle, J., Scholl, P. M. and **Nanayakkara, S. C.** 2021. ClothTiles: A Prototyping Platform to Fabricate Customized Actuators on Clothing using 3D Printing and Shape-Memory Alloys. In ***Proceedings of the 39th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'21)***, May 8-13, 2021, Yokohama, Japan. ACM, New York, NY. Article No. 510.
4. Muthukumarana S., Elvitigala D.S., Wu Q., Pai Y.S., **Nanayakkara, S. C.** (2021). Jammify: Interactive Multi-sensory System for Digital Art Jamming. In: Ardito C. et al. (eds) Human-Computer Interaction-INTERACT 2021. Lecture Notes in Computer Science, vol 12936.
5. Corts, J.P.F., Suriyaarachchi, H., Nassani, A., Zhang, H. and **Nanayakkara, S. C.**. 2021. OM: A Comprehensive Tool to Elicit Subjective Vibrotactile Expressions Associated with Contextualised Meaning in Our Everyday Lives. In ***ACM International Conference on Mobile Human Computer Interaction (MobileHCI'21)***, September 27– October 1, 2021, Touluse, France. Article No. 6.
6. Elvitigala, S., Scholl P.M., Suriyaarachchi, H., Dissanayake, V. and **Nanayakkara, S. C.**. 2021. StressShoe: A DIY Toolkit for just-in-time Personalised Stress Interventions for OficeWorkers Performing Sedentary Tasks. In ***ACM International Conference on Mobile Human Computer Interaction (MobileHCI'21)***, September 27– October 1, 2021, Touluse, France. Article No. 38. [Honourable Mention]
7. Elvitigala, S., **Nanayakkara, S. C.** and Huber J. 2021. Augmented Foot: A Comprehensive Survey of Augmented Foot Interfaces. In ***Proceedings of the 12th Augmented Humans International Conference (AHs'21)***, February 2224, 2021, Rovaniemi, Finland. ACM, New York, NY. 228–239.
8. Matthies, D. J. C., Weerasinghe, C., **Nanayakkara, S. C.** and Urban B. 2021. CapGlasses: Untethered Capacitive Sensing with Smart Glasses. In ***Proceedings of the 12th Augmented Humans International Conference (AHs'21)***, February 2224, 2021, Rovaniemi, Finland. ACM, New York, NY. 121–130.
9. Matthies, D. J. C., Elvitigala, S., Fu, A., Yin, D. and **Nanayakkara, S. C.**. 2021. mobiLLD: Exploring the Detection of LegLength Discrepancy and Altering Gait with Mobile Smart Insoles. In ***Proceedings of the 14th PErvasive Technologies Related to Assistive Environments Conference (PETRA'21)***, June 29-July 2, 2021, Corfu, Greece. ACM, New York, NY. 37–47.
10. Boldu, R., Wijewardena, M., Zhang, H. and **Nanayakkara, S. C.** 2020. MAGHair: A Wearable System to Create Unique Tactile Feedback by Stimulating Only the Body Hair. In ***Proceedings of the 22nd Annual SIGCHI Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI'20)***. Article 16.
11. Muthukumarana, S., Elvitigala, D. S., Cortes, J. P. F., Matthies, D. J. C. and **Nanayakkara, S. C.** 2020. Touch me Gently: Recreating the Perception of Touch using a Shape-Memory Alloy Matrix. In ***Proceedings of the 38th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'20)***, April 25-30, 2020, Hawaii, USA. ACM, New York, NY.

12. Mueller, F. F., Lopes, P., Strohmeier, P., Ju, W., Seim, C., Weigel, M., **Nanayakkara, S. C.**, Obrist, M., Li, Z., Delfa, J., Nishida, J., Gerber, E. M., Svanaes, D., Grudin, J., Greuter, S., Kunze, K., Erickson, T., Greenspan, S., Inami, M., Marshall, J., Reiterer, H., Wolf, K., Meyer, J., Schiphorst, T., Wang, D. and Maes, P. 2020. Next Steps in Human-Computer Integration. In ***Proceedings of the 38th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'20)***, April 25-30, 2020, Hawaii, USA. ACM, New York, NY.
13. Withana, A., Kaluarachchi, T., Singhabahu, C., Ransiri, S., Shi, Y. and **Nanayakkara, S. C.** 2020. waveSense: Low Power Voxel- tracking Technique for Resource Limited Devices. In ***Proceedings of the 11th Augmented Humans International Conference (AHs'20)***, March 16-17, 2020, Kaiserslautern, Germany. ACM, New York, NY.
14. Shi, Y., Zhang, H., Jiashuo, C., and **Nanayakkara, S. C.** 2020. VersaTouch: A Versatile Plug-and-Play System that Enables Touch Interactions on Everyday Passive Surfaces. In ***Proceedings of the 11th Augmented Humans International Conference (AHs'20)***, March 16-17, 2020, Kaiserslautern, Germany. ACM, New York, NY.
15. Boldu, R., Jain, S., Cortes, J. P. F., Zhang, H. and **Nanayakkara, S. C.** 2019. M-Hair: Creating Novel Tactile Feedback by Augmenting the Body Hair to Respond to Magnetic Field. In ***Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (UIST'19)***, October 20-23, 2019, New Orleans, USA. ACM, New York, NY, USA, 323328.
16. Elvitigala, S., Matthies, D. J. C., David, L., Weerasinghe, C. and **Nanayakkara, S. C.** 2019. GymSoles: Improving Squats and Dead-Lifts by Visualizing the Users Centre of Pressure. In ***Proceedings of the 37th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'19)***, May 4-9, 2019, Montreal QC, Canada. ACM, New York, NY. Paper 174.
17. Cascon, P. G., Matthies, D. J. C., Muthukumarana, S. and **Nanayakkara, S. C.** 2019. ChewIt. An Intraoral Interface for Discreet Interactions. In ***Proceedings of the 37th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'19)***, May 4-9, 2019, Montreal QC, Canada. ACM, New York, NY. Paper No. 326. [Honourable Mention]
18. Dissanayake, V., Elvitigala, D. S., Zhang, H., Weerasinghe, C., and **Nanayakkara, S. C.** 2019. CompRate: Power Efficient Heart Rate and Heart Rate Variability Monitoring on Smart Wearables. In ***Proceedings of the 25th ACM Symposium on Virtual Reality Software and Technology (VRST'19)***, November 12-15, 2019, Sydney, Australia. ACM, New York, NY. Article 16.
19. Elvitigala, D. S., Matthies, D. J. C., Dissanayaka, V., Weerasinghe, C. and **Nanayakkara, S. C.** 2019. 2bit-TactileHand: Evaluating Tactons for On-Body Vibrotactile Displays on the Hand and Wrist. In ***Proceedings of the 10th Augmented Human International Conference (AH'19)***, March 11-12, 2019, Reims Champagne-Ardenne, France, ACM, New York, NY, 3:13:8.
20. Petry, B., Illandara, T., Elvitigala, S. and **Nanayakkara, S. C.** 2018. Supporting Rhythm Activities of Deaf Children using Music-Sensory-Substitution Systems. In ***Proceedings of the 36th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'18)***, April 21-26, 2018, Montreal QC, Canada. ACM, New York, NY. Paper No 486.
21. Shi, Y., Zhang, H., Elvitigala, S., Rajapakse, H., Perera, N. T., Glvez, T. V. and **Nanayakkara, S. C.** 2018. GestAKey: Touch Interaction on Individual Keycaps. In ***Proceedings of the 36th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'18)***, April 21-26, 2015, Montreal QC, Canada. ACM, New York, NY. Paper No 596.
22. Xuhai, X., Dancu, A., Maes, P. and **Nanayakkara, S. C.** 2018. Hand Range Display: Information always at hand with a body-centric mid-air display. In ***Proceedings of the International Conference on Human-Computer Interaction with Mobile Devices and Services Mobile (HCI'18)***. ACM, New York, NY, USA. Article 5.
23. Sridhar, P. K., Chan, W. T. S., and **Nanayakkara, S. C.** 2018. Going Beyond Performance Scores: Understanding Cognitive-Affective States in Kindergarteners. In ***Proceedings of the 17th ACM Conference on Interaction Design and Children (IDC'18)***, June 19-22, Trondheim, Norway. ACM, New York, NY, USA, 253-265.
24. Rod, J., Collins, D., Ai, Y., Lee, H., and **Nanayakkara, S. C.** 2017. UTAP- Unique Topographies for Acoustic Propagation: Designing Algorithmic Waveguides for Sensing in Interactive Malleable Interfaces. In ***Proceedings of the 11th International Conference on Tangible, Embedded and Embodied Interactions (TEI'17)***, March 20-23, 2017, Yokohama, Japan. ACM, New York, NY, 141-152.
25. Petry, B., Illandara, T. and **Nanayakkara, S. C.** 2016. MuSS-Bits: Sensor- Display Blocks for Deaf People to Explore Musical Sounds. In ***Proceedings of the 27th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'16)***, Nov 29- Dec 2, 2016, Tasmania, Australia. ACM, New York, NY, 72-80. [Best Paper Award]

26. Ploderer, B., Fong, J., Withana, A., Klaic, M., Nair, S., Crocher, V., Vetere, F. and **Nanayakkara, S. C.** 2016. ArmSleeve: A Patient Monitoring System to Support Occupational Therapists in Stroke Rehabilitation. In ***Proceedings of the ACM Conference on Designing Interactive Systems (DIS'16)***, June 4-8, 2016, Brisbane, Australia. ACM, New York, NY, 700-711.
27. Shilkrot, R., Huber, J., Wong, M. E., Maes, P. and **Nanayakkara, S. C.** 2015. FingerReader: A Wearable Device to Explore Printed Text on the Go. In ***Proceedings of the 33rd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'15)***, April 18-23, 2015 Seoul, Korea. ACM, New York, NY, 2363-2372.
28. Withana, A., Peiris, R., Samarasekara, N., and **Nanayakkara, S. C.** 2015. zSense: Enabling Shallow Depth Gesture Recognition for Greater Input Expressivity on Smart Wearables. In ***Proceedings of the 33rd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'15)***, April 18-23, 2015, Seoul, Korea. ACM, New York, NY, 3661-3670.
29. Olberding, S., Steimle, J., Nanayakkara, S. C and Maes, P. 2015. CloudDrops: Stamp-sized Pervasive Displays for Situated Awareness of Web-based Information. In ***Proceedings of International Symposium on Pervasive Displays***, June 10-12, 2015, Saarbrucken, Germany, 47-53.
30. Cortes, J. P. F., Ching, T. H., Wu, C., Chionh, C. Y., **Nanayakkara, S. C.** and Foong, S. 2015. BWard: An Optical Approach for Reliable in-situ Early Blood Leakage Detection at Catheter Extraction Points. In ***Proceedings of the 7th IEEE International Conference on Automation and Mechatronics (CIS-RAM 2015)***, July 15-17, 2015, Angkor Wat, Cambodia. IEEE, Piscataway, NJ.
31. Li, T., Raghunath, N., Holtta-Otto, K., Arpak, A., **Nanayakkara, S. C.** and Telenko, C. 2015. Teaching Interdisciplinary Design Between Architecture and Engineering - Finding Common Ground While Retaining Disciplinary Expertise. In ***Proceedings of the ASME 2015 International Design Engineering Technical Conferences Computers and Information in Engineering Conference (IDETC/CIE 2015)***, August 2-5, 2015, Boston, Massachusetts. IEEE, Piscataway, NJ, 1-11.
32. Withana, A., Koyama, S., Saakes, D., Minamizawa, K., Inam, M., and **Nanayakkara, S. C.** 2015. RippleTouch: Initial Exploration of Wave Resonant Based Full Body Haptic Interface. In ***Proceedings of the 6th Augmented Human International Conference (AH'15)***, March 9-11, 2015, Marina Bay, Singapore. ACM, New York, NY, 61-68.
33. Lissermann, R., Huber, J., Hadjakos, A., **Nanayakkara, S. C.** and Mhlhuser, M. 2014. EarPut: Augmenting Ear-worn Devices for Ear-based Interaction. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 300-307.
34. Peiris, R. and **Nanayakkara, S. C.** 2014. PaperPixels: A Toolkit to Create Paper-based Displays. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 498-504. [Best Paper Award].
35. Fan, K., Huber, J., **Nanayakkara, S. C.** and Inami, M. 2014. SpiderVision: Extending the Human Field of View for Augmented Awareness. In ***Proceedings of the 5th Augmented Human International Conference (AH'14)***, March 8-9, 2014, Kobe, Japan. ACM, New York, NY, 1-8.
36. Yeo, K. P., **Nanayakkara, S. C.** and Ransiri, S. 2013. StickEar: Making Everyday Objects Respond to Sound. In ***Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'13)***, October 8-11, 2013, St Andrews, UK. ACM, New York, NY, 221-226.
37. **Nanayakkara, S. C.**, Shilkrot, R., Yeo, K. P., and Maes, P. 2013. EyeRing: A Finger Worn Input Device for Seamless Interactions with our Surroundings. In ***Proceedings of the 4th Augmented Human International Conference (AH'13)***, March 8-9, 2013, Stuttgart, Germany. ACM, New York, NY, 13-20.
38. **Nanayakkara, S. C.**, Wyse, L., Taylor, E. A. 2012. The Haptic Chair as a Speech Training Aid for the Deaf. In ***Proceedings of the 24th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'12)***, November 26-30, 2012, Melbourne, Australia. ACM, New York, NY, 405-410.
39. **Nanayakkara, S. C.**, Taylor, E. A, Wyse, L. and Ong, S. H. 2009. An enhanced musical experience for the deaf: Design and evaluation of a music display and a haptic chair. In ***Proceedings of the 27th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'09)***, April 4-9, 2009, Boston, USA. ACM, New York, NY, 337-346.

## Peer-reviewed Conference Papers (Short Papers)

1. Cao, J., Chan, W. T. S., Garbett, D. L., Denny, P., Nassani, A., Scholl, P. M. and **Nanayakkara, S. C.** 2021. Sensor-Based Interactive Worksheets to Support Guided Scientific Inquiry. In ***Proceedings of the 20th ACM Conference on Interaction Design and Children (IDC'21)***, June 26-30, Athens, Greece. 1–7. [Best Paper Award]

2. Wen, E., Weber, G. and **Nanayakkara, S. C.** 2021. WasmAndroid: A Cross-Platform Runtime for Native Programming Languages on Android. In ***Proceedings of the 22nd ACM SIGPLAN/SIGBED International Conference on Languages, Compilers, and Tools for Embedded Systems (LCTES21)***
3. Elvitigala, S., Matthies, D. J. C., Weerasinghe, C. and **Nanayakkara, S. C.**. 2021. GymSoles++: Combining Google Glass withSmart Insoles to Improve Body Posture when Performing Squats. In ***Proceedings of the 14th PErvasive Technologies Related to Assistive Environments Conference (PETRA'21)***, June 29-July 2, 2021, Corfu, Greece. ACM, New York, NY. 48–54. [Best Student Paper Award]
4. Kaluarachchi, T., Sapkota, S., Taradel, J., Thevenon, A., Matthies, D.J.C., and **Nanayakkara, S. C.**. 2021. EyeKnowYou: A DIY Toolkit to Support Monitoring Cognitive Load and Actual Screen Time using a Head-Mounted Webcam. In Extended Abstracts of ***ACM International Conference on Mobile Human Computer Interaction (MobileHCI'21)***, September 27– October 1, 2021, Touluse, France. Article No. 4.
5. Siriwardhana, S., Reis, A., Weerasekera, R. and **Nanayakkara, S. C.** 2020. Jointly Fine-Tuning BERT-Like Self Supervised Models to Improve Multimodal Speech Emotion Recognition. In ***Proceedings of the Interspeech 2020***, October 25-29, 2020, Shanghai, Chaina. 3755–3759.

   Dissanayake, V., Zhang, H., Billinghurst, M. and **Nanayakkara, S. C.** 2020. Speech Emotion Recognition in the wild Using an Autoencoder. In ***Proceedings of the Interspeech 2020***, October 25-29, 2020, Shanghai, Chaina. 526–530.
6. Matthies, D. J. C., Haescher, M., Bieber, G., and **Nanayakkara, S. C.** 2019. Hand-Arm Vibration Estimation using A Commercial Smartwatch. In ***Proceedings of 14th International Conference on Hand-Arm-Vibration***, 21-24 May 2019, Bonn, Germany.
7. Chua, Y., Sridhar, P. K., Zhang, H., Dissanayake, V., **Nanayakkara, S. C.** 2019. Evaluating IVR in Primary School Classrooms. In ***Proceedings of International Symposium on Mixed and Augmented Reality, (ISMAR'19)***.
8. Buddhika, T., Zhang, H., Weerasinghe, C., **Nanayakkara, S. C.** and Zimmermann, R. 2019. OSense: Object-activity Identification Based on Gasping Posture and Motion. In ***Proceedings of the 10th Augmented Human International Conference (AH'19)***, March 11-12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 13:113:5.
9. Buddhika, T., Zhang, H., Samantha, W. T. C., Dissanayake, V., **Nanayakkara, S. C.** and Zimmermann, R. 2019. fSense: Unlocking the Dimension of Force for Gestural Interactions Using Smartwatch PPG Sensor. In ***Proceedings of the 10th Augmented Human International Conference (AH'19)***, March 11-12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 11:111:5.
10. Samantha, W. T. C., Zhang, H., and **Nanayakkara, S. C.** 2019. Prospero: A Personal Wearable Memory Coach. In ***Proceedings of the 10th Augmented Human International Conference (AH'19)***, March 11-12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 26:1-26:5.
11. Matthies, D. J. C., Haescher, M., **Nanayakkara, S. C.** and Bieber, G. 2018. Step Detection for Rollator Users with Smartwatches. In ***Proceedings of the Symposium on Spatial User Interaction (SUI'18)***. ACM, New York, NY, 163-167. [Best Paper Award].
12. Nguyen, N. T., **Nanayakkara, S. C.**, Lee, H. 2018. Visual Field Visualizer: Easier Scalable way to be Aware of the Visual Field. In ***Proceedings of the 9th Augmented Human International Conference (AH'18)***, February 7-9, 2018, San Jose, USA. ACM, New York, NY. Article No. 31.
13. Shi, Y., Glvez, T. V., Zhang, H. and **Nanayakkara, S. C.** 2017. GestAKey: Get More Done with Just-a-Key on a Keyboard. In ***Adjunct Publication of the 30th Annual ACM Symposium on User Interface Software and Technology (UIST'17)***, October 22-25, 2017, Quebec City, Canada. ACM, New York, NY, 73-75.
14. Boldu, R., Zhang, H., Cortes, J. P. F., Muthukumarana, S. and **Nanayakkara, S. C.** 2017. InSight: a systematic approach to create dynamic human-controller-interactions. In ***Proceedings of the 8th Augmented Human International Conference (AH'17)***, March 16-28, 2017, San Jose, USA. ACM, New York, NY. Article No. 26. [Best Paper Award].
15. Elvitigala, S., Peiris, R., Wilhelm, E., Foong, S. and **Nanayakkara, S. C.** 2017. GrabAmps: grab a wire to sense the current flow. In ***Proceedings of the 8th Augmented Human International Conference (AH'17)***, March 16-28, 2017, San Jose, USA. ACM, New York, NY. Article No. 30.
16. **Nanayakkara, S. C.**, Schroepfer, T., Wyse, L., Lian, A. and Withana, A. 2017. SonicSG: from floating to sounding pixels. In ***Proceedings of the 8th Augmented Human International Conference (AH'17)***, March 16-28, 2017, San Jose, USA. ACM, New York, NY. Article No. 21.
17. Sridhar, P., **Nanayakkara, S. C.**, and Huber, J. 2017. Towards understanding of play with augmented toys. In ***Proceedings of the 8th Augmented Human International Conference (AH'17)***, March 16-28, 2017, San Jose, USA. ACM, New York, NY. Article No. 22.

18. Khan, S., Rajapakse, H., Zhang, H., **Nanayakkara, S. C.**, Tuncer, B., and Blessing, L. 2017. GesCAD: an intuitive interface for conceptual architectural design. In ***Proceedings of the 29th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'17)***, Nov 28- Dec 1, 2017, Brisbane, Australia. ACM, New York, NY, 402-406.
19. Sridhar, P., Petry, B., Pavithren, V. S., Kartolo, A. S. and **Nanayakkara, S. C.** 2016. Towards One-Pixel-Displays for Sound Information Visualization. In ***Proceedings of the 27th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'16)***, Nov 29- Dec 2, 2016, Tasmania, Australia. ACM, New York, NY, 91-95.
20. Elvitigala, S., Wessolek, D., Achenbach, A. V., Singhabahu, C. and **Nanayakkara, S. C.** 2016. SwimSight: Supporting Deaf Users to Participate in Swimming Games. In ***Proceedings of the 27th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'16)***, Nov 29- Dec 2, 2016, Tasmania, Australia. ACM, New York, NY, 567-570.
21. Fan, K., Seigneur, J. M., Guislain, J., **Nanayakkara, S. C.** and Inami, M. 2016. Augmented Winter Ski with AR HMD. In ***Proceedings of the 7th Augmented Human International Conference (AH'16)***, February 25-26, 2016, Geneva, Switzerland. New York, NY. Article No. 34.
22. Fan, K., Seigneur, J. M., **Nanayakkara, S. C.** and Inami, M. 2016. Electrosmog: Visualization through Augmented Blurry Vision. In ***Proceedings of the 7th Augmented Human International Conference (AH'16)***, February 25-26, 2016, Geneva, Switzerland. ACM, New York, NY. Article No. 35.
23. Peiris, R. L, **Nanayakkara, S. C.**, Wijesinghe, V. and Minamizawa, K. 2014. KineticCanvas: Synergetic Effort Between Art and Technology. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'15)***, December 7-10, 2015, Melbourne, Australia. ACM, New York, NY, 575-578.
24. Avila, S., Huber, J., Janaka, N., Withana, A., Fernando, P. and **Nanayakkara, S. C.** 2014. SparKubes: Exploring the Interplay between Digital and Physical Spaces with Minimalistic Interfaces. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 204-207.
25. Peiris, R., Janaka, N., De Silva, D. R. and **Nanayakkara, S. C.** 2014. SHRUG: Stroke Haptic Rehabilitation Using Gaming Interfaces. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 380-383.
26. Fernando, P., Peiris, R. and **Nanayakkara, S. C.** 2014. I-Draw: Towards a Freehand Drawing Assistant. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 208-211.
27. Hettiarachchi, A., Premalal, A., Dias, D. and **Nanayakkara, S. C.** 2014. Towards Context-Aware Just-in-Time Information: Micro-Activity Recognition of Everyday Objects. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'14)***, December 2-5, 2014, Sydney, Australia. ACM, New York, NY, 422-425.
28. Shilkrot, R., Huber, J., Liu, C. K., Maes, P. and **Nanayakkara, S. C.** 2014. FingerReader: A Wearable Device to Support Text-Reading on the Go. In ***Extended Abstracts of the 32nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'14)***, April 26-May 2, 2014, Toronto, Canada. ACM, New York, NY, 2359-2364.
29. Huber, J., Rekimoto, J., Inami, M., Shilkrot, R., Maes, P. Wong, M. E., Pullin, G. and **Nanayakkara, S. C.** 2014. Workshop on Assistive Augmentation. In ***Proceedings of the 32nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'14)***, April 26-May 2, 2014, Toronto, Canada. ACM, New York, NY, 103-106.
30. Petry, B., Avila, S., **Nanayakkara, S. C.** and Foong, S. 2014. Birdie: Towards a true flying experience. In ***Workshop on Assistive Augmentation, Extended Abstracts of the 32nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'14)***, April 26-May 2, 2014, Toronto, Canada. ACM, New York, NY.
31. Yeo, K. P. and **Nanayakkara, S. C.** 2013. SpeechPlay: Composing and Sharing Expressive Speech Through Visually Augmented Text. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'12)***, November 25-29, 2013, Adelaide, Australia. ACM, New York, NY, 565-568.
32. Ransiri, S., Peiris, R. L. A., Yeo, K. P. and **Nanayakkara, S. C.** 2013. SmartFinger: Connecting Devices, Objects and People seamlessly. In ***Proceedings of the 25th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'12)***, November 25-29, 2013, Adelaide, Australia. ACM, New York, NY, 359-362.

33. Yeo, K. P. and **Nanayakkara, S. C.** 2013. StickEar: Augmenting Objects and Places Wherever Whenever. In ***Extended Abstracts of the 31st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'13)***, April 27-May 2, 2013, Paris, France. ACM, New York, NY, 751-756.
34. Hettiarachchi, A., **Nanayakkara, S. C.**, Yeo, K. P., Shilkrot, R. and Maes, P. 2013. FingerDraw: More than a Digital Paintbrush. In ***Proceedings of the 4th Augmented Human International Conference (AH'13)***, March 8-9, 2013, Stuttgart, Germany. ACM, New York, NY, 1-4.
35. Ransiri, S. and **Nanayakkara, S. C.** 2013. SmartFinger: An Augmented Finger as a Seamless Channel between Digital and Physical Objects. In ***Proceedings of the 4th Augmented Human International Conference (AH'13)***, March 8-9, 2013, Stuttgart, Germany. ACM, New York, NY, 5-8.
36. Olberding, S., Yeo, K. P., **Nanayakkara, S. C.** and Steimle, J. 2013. AugmentedForearm: Exploring the Design Space of a Display-enhanced Forearm. In ***Proceedings of the 4th Augmented Human International Conference (AH'13)***, March 8-9, 2013, Stuttgart, Germany. ACM, New York, NY, 9-12.
37. Ransiri, S. and **Nanayakkara, S. C.** 2012. WatchMe: Wrist-worn interface that makes remote monitoring seamless. In ***Proceedings of the 14th international ACM SIGACCESS conference on Computers and accessibility (ASSETS'12)***, October 22-24, 2012, Boulder, Colorado, 243-244.
38. **Nanayakkara, S. C.**, Wyse, L., Taylor, E. A. 2012. Effectiveness of the Haptic Chair in Speech Training. In ***Proceedings of the 14th international ACM SIGACCESS conference on Computers and accessibility (ASSETS'12)***, October 22-24, 2012, Boulder, Colorado, 235-236.
39. Wyse L., **Nanayakkara, S. C.**, Seekings, P., Ong, S. H. and Taylor, E. 2012. Palm-area sensitivity to vibrotactile stimuli above 1 kHz. In ***Proceedings of the 12th International Conference on New Interfaces for Musical Expression (NIME'12)***, May 21-23, 2012, Ann Arbor, Michigan, 21-23.
40. **Nanayakkara, S. C.**, Shilkrot, R. and Maes, P. 2012. EyeRing: A Finger-worn Assistant. In ***Extended Abstracts of the 30th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'12)***, May 5-10, 2012, Austin, Texas. ACM, New York, NY, 1961-1966.
41. Wyse, L., Mitani, N. and **Nanayakkara, S. C.** 2011. Biases and interaction effects in gestural acquisition of auditory targets using a hand-held device. In ***Proceedings of the 23rd Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'11)***, November 28-December 2, 2011, Canberra, Australia. ACM, New York, NY, 315-318.
42. Wyse, L., Mitani, N. and **Nanayakkara, S. C.** 2011. The effect of visualizing audio targets in a musical listening and performance task. In ***Proceedings of the 11th International Conference on New Interfaces for Musical Expression (NIME'11)***, May 30-June 1, 2011, Oslo, Norway, 304-307.
43. **Nanayakkara, S. C.**, Taylor, E., Wyse, L. and Ong, S.H. 2007. Towards building an experiential music visualizer. In ***Proceedings of the 6th International Conference on Information, Communications and Signal Processing (ICICS'07)***, December 10-13, 2007, Singapore. IEEE, Piscataway, NJ, 1-5.
44. **Nanayakkara, S. C.**, Srinivasan, D., Lup, L. W., German, X., Taylor, E. and Ong, S H. 2007. Genetic Algorithm Based Route Planner for Large Urban Street Networks. In ***Proceedings of the IEEE Congress on Evolutionary Computation (CEC'07)***, September 25-28, 2007, Singapore. IEEE, Piscataway, NJ, 4469-4474.
45. **Nanayakkara, S. C.**, Chitre, M., Ong, S. H. and Taylor, E. 2007. Automatic classification of whistles produced by Indo-Pacific Humpback dolphins (Sousa chinensis). In ***Proceedings of the IEEE Oceans Conference (Oceans'07)***, June 18-21, 2007, Aberdeen, Scotland. IEEE, Piscataway, NJ, 1-5.

## Invited Large Scale Public Installations & Exhibitions

1. **Nanayakkara, S. C.,** Schroepfer, T., Wyse, L., Withana, A., Lian, A. 2016. SonicSG: Large-scale interactive sonic light installation in the Singapore River. Funded by SG50 Celebration Fund, Dec, 2015 - Jan, 2016.
2. **Nanayakkara, S. C.,** Schroepfer, T., Boldu, R., Muthukumarana, S. Withana, A., Lian, A. 2016. RIBbon: Interactive light installation on Read Bridge at Clarke Quay, Singapore. Funded by Singapore River One, Dec, 2015 - Jan, 2016.
3. **Nanayakkara, S. C.,** Schroepfer, T., Withana, A., Peris, R., Huber, J., Wijesinghe, V., Wortmann, T., Cornelius, A., Khew, Y.N., Lian, A. 2014. Making Sense: Intersecting Lines of Investigation in Design and Technology. Invited exhibition at National Design Centre, 111 Middle Road, Singapore, Nov 8 - 30, 2014.
4. **Nanayakkara, S. C.,** Schroepfer, T., Wortmann, T., Yeo, K. P., Khew, Y. N., Lian, A. and Cornelius, A. 2014. iSwarm: an iterative light installation on the water. In i Light Marina Bay 2014, Marina Bay, Singapore, March 7 - 30, 2014.

5. **Nanayakkara, S. C.,** Schroepfer, T., Withana, A., Wortmann, T., Cornelius, A., Khew, Y.N., Lian, A. 2014. Keepers Bees: an interactive light-art installation of interactive critters that visitors can interact with in real time via their smartphones. In Singapore, Archifest 2014, Keepers: Singapore Designer Collaborative, Orchard Green, Singapore, Sep 26 - October 11, 2014.
6. **Nanayakkara, S. C.,** Schroepfer, T., Withana, A., Wortmann, T. and Pablo, J. 2014. nZwarm: a swarm of luminous sea creatures that interact with passers-by. In Wellington LUX 2014, Wellington Waterfront, New Zealand, August 22 - 31, 2014.
7. **Nanayakkara, S. C.,** McKay, R., Cleveland, P., Cibilich, L., Walton, R., Elvitigala, S., Muthukumarana, S. and Dissanayake, V. 2020. rainbowHub: Interactive lights that lets you play a part. In Pride Day Festival 2020, Ellen Melville Centre in Freyberg Place, Auckland, New Zealand, February 03 - 21, 2020.

## Other Creative Outputs (Juried Interactive Demonstrations/Posters)

1. Uwe Rieger, Liu, Y., Boldu, R., Zhang, H., Alwani, H. and **Nanayakkara, S. C.** 2020. LightTank. In ***Art Gallery of the Singgraph Asia (SA'20)***, December 4–13, 2020, Virtual. ACM, New York, NY. Article No. 36.
2. Muthukumarana, S., Elvitigala. S., Wu, Q., Pai, Y.S. and **Nanayakkara, S. C.** 2020. Jammify: Interactive light display system to promote impromptu digital art jamming. In ***Garden Aotearoa New Zealand of Ars Eletronics 2020***, September 9–13, 2020, Virtual.
3. Elvitigala, D. S., Matthies, D. J. C., Weerasinghe, C., Shi, Y. and **Nanayakkara, S. C.** 2020. GymSoles++: Using Smart Wearables to Improve Body Posture when Performing Squats and Dead-Lifts. In ***Posters of the of the 11th Augmented Humans International Conference (AHs'20)***, March 16 - 17, 2020, Kaiserslautern, Germany. ACM, New York, NY.
4. Boldu, R., Jain, S., Cortes, J. P. F., Zhang, H. and **Nanayakkara, S. C.** 2019. M-Hair: Extended Reality by Stimulating the Body Hair. ***Demos of SIGGRAPH Asia 2019 XR (SIGGRRAPHAsia)***, November 17 - 20, 2019, Brisbane, Australia, 27-28
5. Muthukumarana, S., Elvitigala, D. S., Cortes, J. P. F., Matthies, D. J. and **Nanayakkara, S. C.** 2019. PhantomTouch: Creating an Extended Reality by the Illusion of Touch using a Shape-Memory Alloy Matrix. ***Demos of SIGGRAPH Asia 2019 XR (SIGGRRAPHAsia)***, November 17 - 20, 2019, Brisbane, Australia, 29-30.
6. Muthukumarana, S., Matthies, D. J. C., Weerasinghe, C., Elvitigala, D. S. and **Nanayakkara, S. C.** 2019. CricketCoach: Towards Creating a Better Awareness of Gripping Forces for Cricketers. In ***Posters of the 10th Augmented Human International Conference (AH'19)***, March 11 - 12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 42:142:2.
7. Matthies, D. J. C., Elvitigala, D.S., Muthukumarana, S., Huber J., and **Nanayakkara, S. C.** 2019. CapMat: A Smart Foot Mat for User Authentication. In ***Posters of the 10th Augmented Human International Conference (AH'19)***, March 11 - 12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 43:143:2.
8. Elvitigala, D. S., Samantha, W. T. C., Howell, N., Matthies, D. J. C., and **Nanayakkara, S. C.** 2019. Doodle Daydream: An Interactive Display to Support Playful and Creative Interactions Between Co-workers. In ***Posters of the Symposium on Spatial User Interaction (SUI'18)***, March 11 - 12, 2019, Reims Champagne-Ardenne, France. ACM, New York, NY, 186-186.
9. Withana, A., Ransiri, S., Kaluarachchi, T., Singhabahu, C., Yilei, S., Elvitigala, S. and **Nanayakkara, S. C.** 2016. Ultra-Low Power Gesture Sensing Based on Selective Volumetric Illumination. ***Demos of the ACM Symposium on User Interface Software and Technology (UIST'16)***, October 16 - 19, 2016, Tokyo, Japan. ACM, New York, NY, 139-140.
10. Boldu, R., Manamperi, B., Buddhika, T., Ransiri, S., Shilkrot, R., **Nanayakkara, S. C.** and Maes, P. 2016. FingerReader. ***Demos of the of the 27th Annual CHISGI Australian Computer-Human Interaction Conference (OZCHI'16)***, Nov 29 - Dec 2, 2016, Tasmania, Australia. ACM, New York, NY.
11. Petry, B., Illandara, T, Cortes, J. P. F. and **Nanayakkara, S. C.** 2016. Ad-Hoc Access to Musical Sound for Deaf Individuals. In ***Posters of the 18th international ACM SIGACCESS conference on Computers and accessibility (ASSETS'16)***, October 24 - 26, 2016, Reno, Nevada, 285- 286.
12. **Nanayakkara, S. C.**, and Yeo, K. P. 2014- 2015. StickEar. Invited ***exhibition at The Davinci: Shaping the Future exhibition*** at Art Science Museum, Nov, 2014 - May, 2015, Marina Bay Sands, Singapore.
13. **Nanayakkara, S. C.**, Shilkrot, R., Huber, J. and Maes, P. 2014 - 2015. FingerReader. Invited ***exhibition at The Davinci: Shaping the Future exhibition*** at Art Science Museum, Nov, 2014 - May, 2015, Marina Bay Sands, Singapore.

14. Peiris, R., Wijesinghe, V. and **Nanayakkara, S. C.** 2015. SHRUG: Stroke Haptic Rehabilitation Using Gaming. ***Demos of the 6th Augmented Human International Conference (AH15)***, March 9 - 11, 2015, Marina Bay, Singapore. ACM, New York, NY, 213-214.
15. Huber, J., Malavipathirana, H., Wang, Y., Li, X., Fu, J. C., Maes, P. and **Nanayakkara, S. C.** 2015. Feel See the Globe: A Thermal, Interactive Installation. ***Demos of the 6th Augmented Human International Conference (AH'15)***, March 9 - 11, 2015, Marina Bay, Singapore. ACM, New York, NY, 215-216.
16. Yong, K. F., Forero, J. P., Foong, S. and **Nanayakkara, S. C.**2015. FootNote: Designing a Cost-Effective Plantar Pressure Monitoring System for Diabetic Foot Ulcer Prevention. In ***Posters of the 6th Augmented Human International Conference (AH'15)***, March 9 - 11, 2015, Marina Bay, Singapore. ACM, New York, NY, 167-168.
17. Shilkrot, R., Huber, J., Liu, C. K., Maes, P. and **Nanayakkara, S. C.** 2014. A Wearable Text-Reading Device for the Visually-Impaired. In ***Videos Track of the 32nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'14)***, April 26 - May 2, 2014, Toronto, Canada. ACM, New York, NY, 193-194.
18. Yeo, K. P., **Nanayakkara, S. C.** and Ransiri, S. 2013. StickEar: Making Everyday Objects Respond to Sound. ***Demos of the ACM Symposium on User Interface Software and Technology (UIST'13)***, October 8 -11, 2013, St Andrews, UK. ACM, New York, NY.
19. **Nanayakkara, S. C.**, Shilkrot, R. and Maes, P. 2012. EyeRing: An Eye on a Finger. In ***Interactivity (Research) Track of the 30th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'12)***, May 5 - 10, 2012, Austin, Texas. ACM, New York, NY.
20. **Nanayakkara, S. C.**, Shilkrot, R. and Maes, P. 2012. EyeRing: An Eye on a Finger. In ***Videos Track of the 30th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'12)***, May 5 - 10, 2012, Austin, Texas. ACM, New York, NY.
21. Mistry, P., **Nanayakkara, S. C.**, and Maes, P. 2011. Touch and Copy, Touch and Paste. In ***Interactivity (Research) Track of the 29th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI'11)***, May 7 - 12, 2011, Vancouver, Canada. ACM, New York, NY.
22. Mistry, P., **Nanayakkara, S. C.** and Maes, P. 2011. SPARSH: Passing Data using the Body as a Medium. In ***Interactivity Track of the 16th Annual ACM Conference on Computer Supported Cooperative Work (CSCW'11)***, March 19 - 23, 2011, Hangzhou, China. ACM, New York, NY.
23. Mistry, P., **Nanayakkara, S. C.** and Maes, P. 2011. SPARSH: Touch the Cloud. In ***Demonstrations Track of the 16th Annual ACM Conference on Computer Supported Cooperative Work (CSCW'11)***, March 19 - 23, 2011, Hangzhou, China. ACM, New York, NY.
24. Mistry, P., **Nanayakkara, S. C.**, and Maes, P. 2011. SPARSH: Touch the Cloud. In ***Videos Track of the 16th Annual ACM Conference on Computer Supported Cooperative Work (CSCW'11)***, March 19 - 23, 2011, Hangzhou, China. ACM, New York, NY.

## Miscellaneous

1. Sridhar, P. K. and **Nanayakkara, S. C.**, 2018. Development of a Triangulated Framework Understand Cognitive-Emotional States during Learning in Children. ***International Conference of Learning Sciences and Early Childhood Education***. November, 2018.
2. Sridhar, P. K., Quin, Y.W. and **Nanayakkara, S. C.**, 2018. Triangulation of Physiological, Behavioural and Observational Data offers better insights into cognitive-emotional states in learning. ***Annual Convention of Association for Psychological Science***. May, 2018.
3. **Nanayakkara, S. C.**, Mishra, A. K. and Mahapatra, D. 2007. Visual attention while watching movies. ***IEEE Region 10 Student Paper Contest***. March, 2007.
4. Taylor, E., Chang, A., Yeo, K. P., **Nanayakkara, S. C.** and Watanabe, K. 2006. Study of the ability of Indo-Pacific Humpback dolphins (*Sousa chinensis*) to respond to synthesised dolphin-like whistles (Frequency Modulated or FM tones). Presented at the ***34th Annual Conference of the International Marine Animal Trainers' Association***. November 5–10, 2006.

## PATENTS

**Granted**

1. Taylor, E., **Nanayakkara, S. C.**, Wyse, L. L., Ong, S. H., Yeo, K. P. and Tan, G. H. 2014. Haptic Chair with Audiovisual Input. (January 28, 2014). US Patent No. US 8,638,966 B2.

2. Cortes, J. P. F, **Nanayakkara, S. C.** and Foong, S. 2020. On-site device for detecting presence of a liquid. (October 13, 2020). US Patent No. US 10,799,123 B2.

**Provisional**

1. Shi, Y., Zhang, H., **Nanayakkara, S. C.** A Wearable IMU-Based Method for Touch Detection. Application in progress: (China) 202010550315.9. Filed June 5th, 2020.
2. Petry, B., Pablo, J. and **Nanayakkara, S. C.** Muss-bits music-sensory-substitution bits. Singapore Provisional Patent Application No. 10201610020P. Filed November 29th, 2016.
3. Elvitigala, S., Wessolek, D., Achenbach, A. V., Singhabahu, C. and **Nanayakkara, S. C.** SWIMSIGHT. Singapore Provisional Patent Application No. 10201609054W. Filed October 28th, 2016.
4. Withana, A., Ransiri, S. and **Nanayakkara, S. C.** Gesture Recognition Devices, Gesture Recognition Methods, And Computer Readable Media. US Provisional Patent Application No. PCT/SG2015/050479 (second filing). Filed October 3rd, 2016.
5. Cortes, J. P. F, **Nanayakkara, S. C.** and Fernando, P. A system and method for providing information for at least one predefined location. Singapore Provisional Patent Application No. 10201600342W. Filed January 15th, 2016.
6. Peiris, R. L. and **Nanayakkara, S. C.** Stroke Haptic Rehabilitation Utilising Gaming. Singapore Provisional Patent Application No. IES101930. Filed October 27th, 2014.
7. Wilhelm, E., **Nanayakkara, S. C.**, Shaohui, F. and Elvitigala, S. StickAmps: just in time intuitive price signals via non-invasive wireless sensors. Singapore Provisional Patent Application No. SG4663. Filed May 23rd, 2014.
8. Peiris, R. L. and **Nanayakkara, S. C.** A Toolkit that Allows Users to Animate Contents on Paper or Textiles. Singapore Provisional Patent Application No. 10201400334Y. Filed March 19th, 2014.
9. Yeo, K. P. and **Nanayakkara, S. C.** A distributed Wireless Sensing System. US Provisional Patent Application No. 61/750,578. Filed January 9th, 2013.
10. **Nanayakkara, S. C.**, Shilkrot, R. and Maes, P. EyeRing: A Finger-worn Assistant. US Provisional Patent Application No. 61581766. Filed December 30th, 2011.
11. Mistry, P., **Nanayakkara, S. C.** and Maes, P. Methods and Apparatus for Touch-Based Data Transfer. US Provisional Patent Application No. 61408728. Filed November 1st, 2010.

## INVITED TALKS, LECTURES & PRESENTATIONS

**WIPO Technology Trends Report 2021** **2021**
Invited Panelist, WIPO Technology Trends Report (WITT), Global Trends in Assistive Technology (AT) , Geneva, Switzerland.

**WIPO and AAATE joint Webinar** **2021**
Invited Panelist, Forum on "Emerging assistive technologies  what's around the corner?", (Virtual Event).

**CINEC Campus Maritime College, Colloquium series** **2021**
Invited talk on "Think big, achieve your dream", (Virtual Event).

**Mercari Research Seminar Series** **2021**
Invited talk on "Initial Steps Towards Assistive Augmentation", (Virtual Event).

**Vietnam Edu 4.0 Summit 2021** **2021**
Keynote Speaker, The Conference: K-12 Education In the Digital Era, Vietnam Edu 4.0 Summit, Hanoi, Vitnam.

**CHI Workshop 2021** **2021**
Keynote Speaker, Assistive Augmentations, CHI workshop on Design and Creation of Inclusive User Interactions Through Immersive Media, Online Virtual Conference.

**Gibbons Memorial Lecture Series 2021** **2021**
Keynote Speaker, Assistive Augmentations: Creating new Human Computer Interfaces that Seamlessly Integrate with our Body, Mind and Behaviour, Gibbons Memorial Lecture Series, University of Auckland, New Zealand.

**New Zealand Partners Workshop Week (NZPWW) 2021** **2021**
Keynote Speaker, Digital Transformation in K12 Education, New Zealand Partners Workshop Week (NZPWW), Hanoi, Vitnam.

**AAI Symposium** **2020**
Invited Speaker, AAAI Fall 2020 Symposium on AI for Social Good, (Virtual Event).

**MERCon 2020** **2020**
Keynote Speaker, Moratuwa Engineering Research Conference (MERCon), Colombo, Sri Lanka.

**WOMAD 2020** **2020**
Invited Speaker, World of Music, Arts and Dance Festival (WOMAD), New Plymouth, New Zealand.

**Northwestern Polytechnical University, China** **2019**
Invited lecture, "Initial Steps towards Assistive Augmentations". University Lecture Series.

**ASPIRE** **2019**
Keynote Speaker, University of Auckland ASPIRE Professional Staff Conference

**WinterWeek** **2019**
Speaker, WinterWeek Lecture Series organized by University of Auckland

**Viyathmaga Professional Conference, Sri Lanka** **2019**
Keynote Speaker, Viyathmaga– network of Academics, Professionals, and Entrepreneurs in Sri Lanka.

**Rasing the Bar** **2018**
Invited Speaker, Rasing the Bar, Auckland, New Zealand.

**DevDay** **2018**
Invited Speaker, DevDay, International software developer conference for all ICT professionals, Colombo, Sri Lanka.

**MedTech CoRE Conference** **2018**
Keynote Speaker, Augmented Reality & Healthcare session **TechWeek** **2018**
Panel Discussion, Changing the World with Creativity and Innovation, Centre for Innovation and Entrepreneurship at University of Auckland.

**Global Grad Show** **2018**
Invited Panel Discussion, Global Grad Show, November, Dubai, UAE.

**APMEC 2018** **2018**
Plenary Speaker, 15th Asia Pacific Medical Education Conference (APMEC), January, 2018, Singapore.

**Sarvodaya-Fusion Awards Ceremony** **2017**
Chief Gust & keynote Speaker, Sarvodaya fusion awards, December, 2017, Colombo, Sri Lanka.

**YouLead 2017** **2017**
Guest Speaker, Youth Employment and Business Start-up Program (YouLead!), December, 2017, Colombo, Sri Lanka.

**IEEE WIE** **2017**
Keynote Speaker, IEEE Women in Engineering (WIE) International Leadership Summit, October, 2017, Colombo, Sri Lanka.

**INK Conference 2016** **2016**
Selected INK Fellow, "Humanizing Technology", INK Conference 2016, Goa, India.

**TEDxYouth@Palmerston 2016** **2016**
Guest Speaker, "Universal Design Enables Everyone", TEDxYouth@Palmerston Event, Palmerston, Australia.

**VISUAL SG Forum** **2016**
Invited Speaker, "Initial step towards Assistive Augmentation", Visual SG Forum, Science Center, Singapore.

**E2 Connect** **2016**
Invited Speaker, "Redefine Disability", IT/AT forum about tech adoption for people, SGEnable, Singapore.

**SLAAS 2015** **2015**
Guest Speaker, "Wealth Creation through Science", Theme Seminar of the Sri Lanka Association for the Advancement of Science (SLAAS), Sri Lanka

**University of Melbourne 2015** **2015**
Speaker, IDL seminar series, "Initial steps towards Assistive Augmentation", The Microsoft Research Centre for Social Natural User Interfaces, University of Melbourne.

**IIUPST 2015** **2015**
Keynote: Initial steps towards Assistive Augmentation.

**Augmented Human 2015** **2015**
Speaker, Invited panel session, Augmentation and Singularity: The Future of Augmented Human.

**CAPT International Student Symposium** **2014**
Speaker, Invited panel session, "EyeRing: A Finger Worn Input Device for Seamless Interactions". CAPT International Student Symposium - Design, Technology and Disability Panel, Singapore 2014.

**MIT Global Startup Labs** **2014**
Invited lecture, "Prototyping and Concept Videos". MIT GSL, Sri Lanka 2014.

**University of Colombo, Sri Lanka** **2014**
Invited lecture, "Graduate Research Opportunities in HCI". Department of Electronics and Telecommunications Lecture Series.

**University of Moratuwa, Sri Lanka** **2014**
Invited lecture, "Graduate Research Opportunities in HCI". Department of Computer Science Lecture Series.

**Urban Redevelopment Authority, Singapore** **2014**
Invited speaker, "Light, Art in Today's context". i Light Symposium 2014.

**Instituto Tecnolgico Autnomo de Mxico, Mexico** **2013**
Invited Speaker, University Distinguished Lecture Series."Initial Steps Towards Assistive Augmentation".

**University of Moratuwa, Sri Lanka** **2013**
Invited speaker, "Introduction to Sensory Augmentation". Department of Computer Science Lecture Series.

**TechInnovation, Singapore Tech Fair** **2012**
Invited speaker, "EyeRing: A Finger-worn Interface". Industry-technology matching event, Singapore.

**Australian Computer-Human Interaction Conference, Australia** **2012**
Speaker, "FingerDraw: Finger Turned into a Brush Connecting Digital and Physical Worlds". Flash Talk, OZCHI'12.

## RESEARCH GRANTS

### External

1. **A Pilot Deployment of a Portable, Home-based Diabetic Foot Monitoring System**. Funded by Health Research Council, New Zealand). Aug 2021–May 2022.
   Funded Amount: NZD 30,000
   Role: Principal Investigator (100% contribution)
2. **Project Kiwrious: Activating Curious and Fearless Problem Solvers**. Funded by Ministry of Business, Innovation & Employment, Curious Minds Fund). Feb 2020–December 2020.
   Funded Amount: NZD 147,723
   Role: Principal Investigator (100% contribution)
3. **Assistive Augmentation Program**. Funded by Tertiary Education Commission of New Zealand). March 2018–February 2022.
   Funded Amount: NZD 7,315,000
   Role: Program Lead & Principal Investigator (100% contribution)
4. **Understanding the effects of VR on Children**. Funded by Ferrero Group. June 2018–May 2019.
   Funded Amount: NZD 282,283
   Role: Principal Investigator (100% contribution)
5. **Human Machine Interfaces and Technology Development for Collaborative Control of Unmanned Systems**. Funded by Defence Science and Technology Agency (DSTA). Nov 2017–February 2018.
   Funded Amount: SGD 200,000
   Role: Co-Investigator (30% contribution); PI: Tan U-Xuan
6. **A novel touch-based bilingual intervention to stave off cognitive decline in the elderly: The Dual-Language Intervention in Semantic Memory-Computerised (DISC)**. Funded by Ministry of Health. April 2017–April 2020.
   Funded Amount: SGD 773,558
   Role: Co-Investigator (30% contribution). PI: Yow Wei Quin
7. **Research gift from Samsung for Surangas Augmented Human Lab research activities**. Funded by Samsung Research America. Nov 2016–Nov 2018.
   Funded Amount: SGD 28,386
   Role: Principal Investigator (100% contribution)
8. **The FingerReader**. Funded by Tote-board Enabling Lives Initiative (TB-ELI). Nov 2016–April 2019.
   Funded Amount: SGD 787,862
   Role: Principal Investigator (100% contribution)
9. **Language, Cognitive Load, Stress Appraisal and Engineering Design Applications**. Funded by Ministry of Education (Tire 1). Dec 2015–Dec 2017.
   Funded Amount: SGD 174,742
   Role: Co-Investigator (30% contribution). PI: Yow Wei Quin
10. **zSense: A novel technology to allow shallow depth gesture recognition on smart wearables**. Funded by SMART Innovation Grant. Mar 2016–Feb 2017.
    Funded Amount: SGD 216,300
    Role: Principal Investigator (100% contribution)
11. **Improved Cognitive Performance by Design**. Funded by Ministry of Defence (MINDEF), Singapore under DIRP program. Aug 2015–Dec 2018.
    Funded Amount: SGD 1,113,700
    Role: Principal Investigator (80% contribution); Co-Investigators: Yow Wei Quin, Hyowon Lee.
12. **Exploration of Object Fingerprint Technology**. Funded by NEC, Japan. April 2015–Sep 2015.
    Funded Amount: SGD 22,400
    Role: Principal Investigator (100% contribution)
13. **zSense: A novel technology to allow shallow depth gesture recognition on smart wearables**. Funded by SMART Ignition Grant. June 2015–May 2016.
    Funded Amount: SGD 57,600
    Role: Principal Investigator (100% contribution)
14. **SCAPE: SeCure ultimAte Payment Experience**. Funded by Gilmour Space Corporation. Jan 2015–Sep 2015.
    Funded Amount: SGD 60,200
    Role: Principal Investigator (100% contribution)

15. **Sonic SG**. SG50 Celebration Fund. Ministry of Culture, Community and Youth (MCCY). Jan 2015–Dec 2015.
    Funded Amount: SGD 49,000
    Role: Principal Investigator (40% contribution); Co-Investigators: Thomas Schroepfer, Lonce Wyse (NUS).
16. **Personalized and Continuous Rehabilitation via Serious Gaming**. Funded by Project GREaT, Media Development Authority. April 2013–Dec 2014.
    Funded Amount: SGD 347,500
    Role: Co-Investigator (50% contribution); PI: Jason Gu
17. **SHRUG: Stroke Haptic Rehabilitation Using Gaming**. Funded by Project GREaT, Media Development Authority. Oct 2014–Sept 2017.
    Funded Amount: SGD 436,000
    Role: Principal Investigator (100% contribution);
18. **Singapore's National Experiment**. Funded by National Research Foundation (NRF) of Singapore. Feb 2015–August 2019.
    Funded Amount: SGD 5,498,684
    Role: Co-Investigator (5% contribution), PI: Erik Wilhelm, Co-Investigators: Nils Tippenhauer, Shaohui Foong, Soh Gim Song, Tan U-Xuan, Clarance Sirisena (SC), Eugene Wambeck (SC), Saminathan Gopal (SC), Mohan Elara, Priji Balakrishnan, Hyungkyoo Kim, Alessandro Romagnoli (NTU), Michel Alexandre Cardin (NUS), Kris Wood

## Internal

1. **International Central Network and Partnership Grant**. Funded by Uni of Auckland. Aug–Oct 2019.
   Funded Amount: NZD 2,650
   Role: Principal Investigator
2. **Design and development of pressure ulcer prevention device customized for Accident & Emergency environment**. Funded by SUTD CGH Healthcare Innovation Fund. Jan 2016–Jan 2017.
   Funded Amount: SGD 115,500
   Role: Principal Investigator (80% contribution); Co-Investigators: Foong Shaohui, Wong Kok Cheong.
3. **SwimSight (A Device to Enable Swimming Games at National Deaf Games 2016)**. Funded by SUTD-MIT International Design Centre (IDC). May 2016–Oct 2016.
   Funded Amount: SGD 5,520
   Role: Principal Investigator (100% contribution)
4. **Gesture Based 3D Modelling Conceptual Architectural Design**. Funded by SUTD-MIT International Design Centre (IDC). Oct 2015–Sep 2016.
   Funded Amount: SGD 99,941
   Role: Co-Investigator (10% contribution), PI: Bige Tuncer
5. **The FingerReader**. Funded by SUTD-MIT IDC Pinnacle of Design Grant. June 2015–May 2016.
   Funded Amount: SGD 95,400
   Role: Principal Investigator (100% contribution)
6. **A Flexible, secure SmartGrid platform and sensor technology**. Funded by SUTD-MIT International Design Centre (IDC). Jan 2015–Dec 2015.
   Funded Amount: SGD 43,200
   Role: Co-Investigator (50% contribution), PI: Erik Wilhelm
7. **Design and Development of an in-situ Early Blood Leakage Detection Device**. Funded by SUTD CGH Healthcare Innovation Fund. Aug 2014–Feb 2016.
   Funded Amount: SGD 93,500
   Role: Co-Investigator (40% contribution); PI: Foong Shaohui
8. **Injury prevention and ambient health monitoring strategies using pervasive wearable interfaces**. Funded by Singapore University of Technology and Design, EPD SRG 2011 009. Aug 2011–July 2015.
   Funded Amount: SGD 100,000
   Role: Principal Investigator (100% contribution)
9. **Designing Multisensory, Intelligent Interfaces for people with Sensory Impairments**. Funded by SUTD-MIT International Design Centre (IDC), July 2011–December 2014.
   Funded Amount: SGD 794,413
   Role: Principal Investigator (90% contribution), Co-Investigator: Pattie Maes (MIT)

10. **Making Sense: Intersecting Lines of Investigation in Design and Technology**. Funded by SUTD-MIT International Design Centre (IDC). Oct 2014–Mar 2015.
    Funded Amount: SGD 22,107
    Role: Co-Investigator (50% contribution), PI: Thomas Schroepfer
11. **Upgrade of Audio Recording Studio for Acoustic Research**. Funded by SUTD-MIT International Design Centre (IDC) Infrastructure Grant. Oct 2016–Feb 2017.
    Funded Amount: SGD 79,422
    Role: Co-Investigator (10% contribution), PI: Jer-Ming Chen, Co-Investigators: Simon Lui, Yow Wei Quin, Ulf Heinrich Bissbort, Ngai-Man Cheung and Hyowon Lee.
12. **The SUTD iDiA Lab mobile app development kit**. Funded by SUTD-MIT International Design Centre (IDC) Infrastructure Grant. Aug 2013–Mar 2014.
    Funded Amount: SGD 118,620
    Role: Co-Investigator (15% contribution), PI: Cheung Ngai-man, Co-Investigators: Stanley Kok, Jason Gu, Simon Lui, Justin Ruths
13. **Optical Motion Tracking and Capture System**. Funded by SUTD-MIT International Design Centre (IDC) Infrastructure Grant. Aug 2013–Mar 2014.
    Funded Amount: SGD 400,000
    Role: Co-Investigator (5% contribution), PI: Foong Shaohui, Co-Investigators: Soh Gim Song, Sai Kit Yeung, Yow Wei Quin, Tan U-Xuan, Mohan Rajesh Elara, Ngai-Man Cheung, Bige Tuncer, Katja Holtta Otto, Ricardo Sosa, Justin Ruths, Chong Keng Hua
14. **Laser Cutters**. Funded by SUTD-MIT International Design Centre (IDC) Infrastructure Grant. Oct 2014–Mar 2015.
    Funded Amount: SGD 125,000
    Role: Co-Investigator (10% contribution), PI: Chen Lujie, Co-Investigators: Foong Shaohui, Sai Kit Yeung, Tan U-Xuan, Yuen Chau, Sawako Kaijima

## TEACHING, ADVISING STUDENTS & RESEARCHERS

### Teaching

**Assistant Professor, SUTD** **2012-2018**
**3.007: Introduction to Design**. Freshmore level signature course at SUTD. Introduces concepts of design at a variety of scales and through both engineering and architectural design disciplines.

**30.101: Systems and Control**. Sophomore level course at Engineering Product Development Pillar (EPD), SUTD. Introduces the fundamentals of signal processing and control concepts in physical systems.

**Associate Faculty, UniSIM** **2013-2018**
**MTD205: Audio Technology**. Level 2 course at UniSIM. Provides the theoretical foundation on the operation of audio systems as components used in multimedia production, distribution and reproduction.

**Teaching Assistant, MIT Media Lab** **2012**
**MAS672 New Paradigms in Human Computer Interaction**. Graduate course at MIT Media Lab. Teaching Assistant to Professor Pattie Maes, Spring 2012.

**Tutor, MIT ESG** **2012**
**18.03 Linear Algebra**. Freshmore level course at MIT ESG. Recitation tutor to Dr. Gabrielle Stoy, Spring 2012.

**Guest Lectures** **2011-Present**
**Empirical Research Methods in Human Computer Interaction**. COMPSCI 399 Capstone: Design Thinking, 2020.
**Empirical Research Methods in Human Computer Interaction**. DM6121: Human Computer Interaction, Spring 2019.
**Initial steps towards Assistive Augmentation**. Microsoft Research Centre for Social Natural User Interfaces, University of Melbourne, 2015.
**Prototyping and Concept Videos**. MIT Global Startup Labs program, 2014.
**Augmented Human: Assistive Technologies**. MAS672 New Paradigms in Human Computer Interaction, Spring 2012.
**An Introduction to Empirical Research Methods in Human Computer Interaction**, Workshop lecture, Interactive and Digital Media Institute at National University of Singapore, Spring 2011.

**Design Thinking Workshops**
Annual 3-day design thinking boot-camp on 'Innovation Creativity and Entrepreneurship (ICE)', Sri Lanka **2016-Present**
Workshop for graduate students of School of Computer Science and Engineering, Nanyang Technological University **2019**
3-day design thinking boot-camp on 'From Ideas to Innovations', Univrsity of Auckland **2018**
Technology & Design Innovation Workshop, Keppel Offshore & Marine **2017–2018**
Ideation workshop, The Defence Science and Technology Agency (DSTA) **2016**
Design Thinking Workshop, DSO National Laboratories, Singapore **2016**

## Student Supervision

### PhD Theses

**Sachith Muthukumarana** **2018-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Human-Computer Integration for Augmenting Human Perception in Sports

**Tharindu Kaluarachchi** **2018-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: A Human-Centered Machine Learning Approach to Create Tools to make AI Accessible to Non-Expert Users

**Shamane Siriwardhana** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Applications of Self Supervised and Multimodal Deep Learning Methods to Develop Affective Artificial Intelligence

**Vipula Dissanayake** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Towards emotion recognition in the wild

**Qin Wu** **2021-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: TBD

**Moritz Messerschmidt** **2020-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Context-Aware On-Body Haptic Feedback for Mobile Interaction

**Kunal Gupta** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Using Context and Physiological Cues to Improve Emotion Recognition in AR/VR
Main-supervisor: Mark Billinghurst

**Prasanth Sasikumar** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Augmented Virtual Teleportation
Main-supervisor: Mark Billinghurst

**Ihshan Gumilar** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Exploring How AR/VR Cues Can Increase Brain Synchronization In Collaborative Tasks
Main-supervisor: Mark Billinghurst

**Nastaran Saffaryazdi** **2019-Present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Using Multimodal Measures for Emotion Recognition in Conversational Settings
Main-supervisor: Mark Billinghurst

**Completed**

**Samantha Chan** **2017-2021**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Development of Memory Augmentation Technology to Support and Improve Everyday Memory

**Samitha Elvitigala** **2017-2021**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Uncovering the Potential of the Foot as a Source of User Information
Placed on the Deans List in recognition of excellence achieved with the doctoral thesis

**Roger Boldu** **2018-2021**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Revealing Inaccessible on-the-go Information by Augmenting Human

**Shi Yilei** **2015-2020**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Enhancing Touch Interactions on Everyday Passive Surfaces
Placed on the Deans List in recognition of excellence achieved with the doctoral thesis

**Priyashri Sridhar** **2015-2019**
Engineering Product Development Pillar, Singapore University of Technology and Design
Thesis Title: Towards Development and Evaluation of Tangible Interfaces that Support Learning in Children

**Benjamin Petry** **2013-2017**
Engineering Product Development Pillar, Singapore University of Technology and Design
Thesis Title: Designing Music-Sensory-Substitution Systems that Support Music-Making for People with Hearing Disabilities

## MEng Theses

**Jonah Belk** **2021-present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: ME Soft Interdigitated Capacitive E-Skin Enhanced By Supervised Machine Learning.

**Chamod Weerasinghe** **2020-present**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Design and Evaluation of a Mobile Sensing Platform for Water Conductivity.

**Juan Pablo Forero Corts** **2018-2020**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: OM: A Comprehensive Tool to Elicit Subjective Vibrotactile Expressions Associated with Contextualised Meaning in Our Everyday Lives.

**Andrew Reis** **2019-2020**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Novel Approaches in Optimizing Emotion Recognition Multitasking Performance.

**Jiashuo Cao** **2019-2020**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Developing Technology-Enhanced Learning Tools to support Scientific Inquiry within and outside Classroom.

**Yvonne Chua** **2018-2019**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Evaluating Immersive Virtual Reality in Primary School Classrooms

**Shamanne Siriwardhana** **2018-2019**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: Application of Universal Successor Features Based Deep Reinforcement Learning for Target Driven Visual Navigation

**Vipula Dissanayake** **2018-2019**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: CompRate: Towards Continuous Sensing of Heart Rate and Heart Rate Variability using Built-in Accelerometer of Smart Wearables

**Pablo Gallego** **2018-2019**
Auckland Bioengineering Institute, University of Auckland
Thesis Title: ChewIt. An Intraoral Interface for Discreet Interactions

**Thisum Buddhika** **2018-2019**
NTU Masters' Programme
Thesis Title: Expanding Hand Grasp Interactions for Context-Aware Applications

**Yong Kin Fuai** **2013-2014**
SUTD-MIT Dual Masters' Programme
Thesis Title: Foot.Note: Designing a Cost Effective Plantar Pressure Active Monitoring System for Diabetic Foot Ulcer Prevention

## Postdoctoral Fellows

**Alaeddin Nassani** **2021-Present**
PhD, University of Canterbury, New Zealand

**Elliott Wen** **2021-Present**
PhD, University of Auckland, New Zealand (Under Examination)

**Samitha Elvitigala** **2021-2022**
PhD, University of Auckland, New Zealand (Under Examination)

**Philip M. Scholl** **2020-2021**
PhD, University of Freiburg, Germany

**Haimo Zhang** **2016-2020**
PhD, National University of Singapore

**Denys J.C. Matthies** **2018-2020**
PhD, Universitt Rostock, Rostock, Germany

**Alexandru Dancu** **2016-2018**
PhD,Chalmers Technical University Gothenburg, Sweden

**Jordi Martori** **2017**
PhD, Universite de Lorraine in France

**Anusha Withana** **2014-2016**
PhD, Graduate School of Media Design, Keio University, Japan

**Daniel Wessolek** **2015-2016**
PhD, Bauhaus University Weimar, Germany

**Roshan Peiris** **2013-2015**
PhD, Department of Electrical & Computer Engineering, National University of Singapore

**Jochen Huber** **2013-2015**
PhD, Technische Universitat Darmstadt, Germany

**Iain Werry** **2013-2014**
PhD, Department of Cybernetics, University of Reading, England

## Research Engineers

**@ Augmented Human Lab, UoA** **2018 - Present**
Juan Pablo Forero Corts, Hannah Qiao, Yvonne Chua, Sankha Cooray, Chamod Weerasinghe, Thisum Buddhika.

**@ Augmented Human Lab, SUTD** **2011 - 2018**
Juan Pablo Forero Corts, Yeo Kian Peen,Piyum Fernando, Santiago Ortega, Thisum Buddhika, Hasitha Rajapakse, Roger Boldu, Attila Victor Achenbach, Shanaka Ransiri

## Undergraduate Researchers

**@ Augmented Human Lab, UoA** **2018 - Present**
Joshua Pressman, Annabelle Ritchie, Alex Woodall, Sze Mun Tan, YiYue Qiao, Hussel Suriyaarachchi

## Masters Mentorships

**MIT Program at UoA** **2018 - Present**
Clarence Jiyu Sun, Yongzhen Li,James Lim.

**MCE Program at UoA**
Kapish Gobindlal, Richard Beven, Alex West, Fiona Taimana **2020**
Min Tan, Phil Stevens, Ali Khan, Leo Oshtein, Jerome Humphrey **2019**

## Visiting Researchers

**RWTH Aachen University, Germany** **2020**
Moritz Messerschmidt

**Academy of Arnhem and Nijmegen, Arnhem, Netherlands** **2019**

Geert den Bieman
**Alfa-college, Netherlands** **2019**
Douwe Schmaal
**University of Novi Sad, Serbia** **2019**
Jovana Lazarevi
**ENSEEIHT engineering school, France** **2019**
Jules Taradel

**Northwestern Polytechnical University, China** **2019**
Mengment Sun
**MIT Media Lab, USA** **2012 - 2016**
Pol Pla, Roy Shilkrot, Amit Zoran, Anirudh Sharma
**University of Moratuwa, Sri Lanka** **2012 - 2018**
Anuruddha Hettiarachchi, Nipuna Samarasekara, Samitha Elvitigala, Nuwan Janaka, Vikum Wijesinghe, Hasantha Malavipathirana, Akshika Wijesundara, Thavishi Illandara, Tharindu Kaluarachchi, Chanaka Singhabahu, Sachith Muthukumarana, Buddhishan Manamperi, Chamod Weerasinghe, Vipula, Dissanayake, Shamane, Siriwadhana, Hasitha Rajapakse, Nuwan Tharaka, Thileepan Beniel, Mevan Wijewardena.
**La Salle - Ramon Llull University, Spain** **2013 - 2015**
Juan Pablo, Pablo Gallego, Santiago Ortega **2019**
**Institut de Recherche en Informatique de Toulouse, France**
Kaixing Zhao
**Chengdu University, China** **2019**
Qin Wu, Jiashuo Cao
**National University of Singapore, Singapore** **2019**
Shardul Sapkota
**Nanyang Technical University, Singapore** **2018**
Heetesh Alwani
**French National University of Civil Aviation** **2018-Present**
Loc David, Ariste Thevenon
**Manipal Institute of Technology, India** **2019**
Rebecca Mathews
**VIT Institute of Technology, India** **2019**
Sambhav Jain, Tamil Selvan
**Carleton University, Canada** **2018**
Adrian Robertson
**University of California, Berkeley** **2017**
Noura Howell, Tomas Vega
**MIT MISTI Global Leadership Program** **2012 - 2016**
Connie Liu, Lynn Takeshita, Ruth E. Park, Jessica A. Fang
**Chalmers University of Technology, Sweden** **2016**
Christoffer Matsson
**ITE College Central, Singapore** **2016**
Colin Toh, Fatin Atiqah, Fang Chuxian
**Keio University** **2014**
Kevin Fan, Tomoya Sasaki
**Singapore Polytechnic** **2012**
Law Jiali

## Competitions

**Velocity Innovation Challenge** **2018-Present**
Advised six teams who won the University of Aucklad, Velocity Innovation Challenge. Team Leads: Samatha Chan, Roger Boldu, Juan Pablo, Denys Matthies, Yvonne Chua, Shamane Siriwardhana
**Student Innovation Contest, UIST'14** **2014**
Faculty Advisor for the Team 'SpInformation' who won the Sponsor's Choice Award. Team members: Benjamin Petry, Juan Pablo and Kin Yong.
**Microsoft Imagine cup** **2012**
Faculty Advisor for the Team 'TechConnect' who was a Semi-finalist. Team memebers: Seow Chun Yong, Madeline Wong, Raymond Te Yeng Jie, Terence Chew Wei Liang

# SERVICE

## Academic Related Professional & Public Services

**Editorial Boards & Steering Committees** **2020-Present**
Steering Committee Member, ARIVE Consortium, NZ & Australia Steering Committee
Member, Augmented Humans International Conference (AH)
Associate Editor, Augmented Reality (specialty section of Frontiers in Virtual Reality)

**Professional Memberships** **2009-Present**
Senior Member & Distinguished Speaker, Association for Computing Machinery (ACM)
Member, Design Society
President, Lanka Lions Cricket Club, Singapore (LLCC), 2015
Vice-president, Lanka Lions Cricket Club, Singapore (LLCC), 2012-2015
Secretary, Lanka Lions Cricket Club, Singapore (LLCC), 2010

**Conference Organization: Chairing** **2014-Present**
Posters Chair, MobileHCI'22 | Technical Program Co-Chair, AH'17 | General Co-Chair, AH'15| Chair, CHI'14 workshop on Assistive Augmentation | Chair, CHI'21 workshop on Design and Creation of Inclusive User Interactions Through Immersive Media

**Conference Organization: Program Committees** **2012-Present**
CHI'18 | OZCHI'18 | ACM HAI'16 | ACM MM'16 Demo | CHI'15 WIP | OZCHI'14 | AH'14 | OZCHI'13 | OZCHI'12 | Mai-I 2013

**Conference Organization: Organising Committees** **2007-Present**
Workshop on Health and Safety, IEEE VR'22 | Motor Memory in HCI, Workshop in CHI'20 | Spatial Audio for Mobile Devices Workshop in conjunction with MobileHCI'07

**Services as a Reviewer** **2010-Present**
Nature Communications | CHI'22 | ISWC'21 | MobileHCI'21 | UIST'20 | MM'17 | AH'17 | CHI'17 | OZCHI'16 | CIS-RAM'15| CHI'14 | OZCHI'14 | Mobile HCI'14 | IEEE TLT| ACM TIIS | OZCHI'13 | CHI'13 | AH'13 | DIS'12 | APCHI'12| OZCHI'12 | ICEC'10 | IEEE VR'10

**External Services: Volunteering & Mentoring** **2000-Present**
Advisor, Singapore Sri Lanka Business Association (SSLBA), 2017
Mentor, Velocity entrepreneurial development programme at University of Auckland, 2017
Judge, National Junior College (NJC) Future Challenge Competition, 2011
Mentor, SUTD Technology and Design Challenge, 2011
Volunteer, Dr.Reijntjes School for the Deaf in Moratuwa, Sri Lanka
Volunteer, National Council for the Deaf, Sri Lanka

## Internal Services

**2021-Present**

### University of Auckland

**Postgraduate Committee**
Member of the Postgraduate Committee at Auckland Bioengineering Institute.**Networking & External Engagements Committee** **2018-Present**
Member of the External Engagements Committee at Auckland Bioengineering Institute.**Executive Committee** **2018-Present**
Member of the Auckland Bioengineering Institute's executive committee where high level matters of the institute are discussed. **2012-Present**

### Singapore University of Technology & Design (SUTD)

**SUTD Internal Review Board (IRB)**
Served in the board for 5 years (such appointments are typically for 2 years).**EPD Budget Committee** **2013-2014**
Lead the EPD budget committee. Coordinated EPD budget requests, and made recommendations to the EPD Pillar head.**EPD Entertainment &Awards Committee** **2013-2014**
**Hostel Fellow at 6-degrees** **2011-2015**
Pioneering member of setting up the residential mentors program at SUTD Student hostel.
**SUTD Students Academic Integrity code** **2011**
Contributed to the development of SUTD Students Academic Integrity code

# SELECTED PRESS

## Web

**Google** (2021).“Augmented Human Lab: Inspiring curiosity for science in kids with Google Cloud solutions”. Feb 2021.
**FastCompany** (2020).“This app is a digital punching bag for all your 2020 rage”. Sep 2020.
**UoA** (2020).“Lab in a pocket awakens young minds to the world around them, making scientific inquiry fun”. Aug 2020.
**Smithsonian** (2019).“Inside Professor Nanayakkaras Futuristic Augmented Human Lab”. April 2019.
**NZ Herald** (2019).“Bite-sized device a new take on wearable tech”. February 2019.
**Wired.UK** (2018).“Step inside the MIT lab designing new human-computer interfaces”. January 2018.
**Echelon** (2017).“Making Technology more Humane”. November 2017.
**CCTV** (2016).“Technology enables people with disabilities”. February 2016.
**CNN** (2015).“Singapore designers create lights for the deaf and rings for the blind”. November 2015.
**WeAreSUTD** (2015).“Professor Suranga: The Engineer Dreams”. April 2015.
**MSNBC** (2014).‘A device that could help the blind read. August 2014.
**Forbes** (2014).“MIT’s FingerReader Could Make Life Easier For The Blind. July 2014.
**Mashable** (2014).“FingerReader Is a 3D-Printed Device That Reads Text Aloud to the Blind. July 2014.
**Fast Company** (2014).“This Decoder Ring Helps The Blind Read Without Braille. July 2014.
**Business Insider** (2014).“A New Type Of Ring Worn On The Finger Eliminates The Need For The Blind To Learn Braille. July 2014
**IFL Science!** (2014).“New Finger Device Reads Books To The Blind. July 2014.
**Huffington Post** (2014).“This Ring Reads Books And Magazines To The Blind. July 2014.
**Associated Press** (2014).“MIT Finger Device Reads to the Blind in Real Time. July 2014.
**Wired (UK)** (2014).“3D-printed ring reads out text in real-time for the blind. July 2014.
**TechCrunch** (2014).“MITs FingerReader Helps The Blind Read With A Swipe Of A Digit. April 2014.
**Lianhe Zaobao** (2014).“300 Students Unite To Light-up Marina Bay. February 2014.
**The Singapore Engineer Magazine** (2014).“Interactive lighting experiences at *i Light Marina Bay 2014*. September 2014.
**Gizmodo** (2014).“This Ring Scans Text And Reads It Aloud For Visually Impaired People”. February 2014.
**Discovery News** (2014).“Finger Computer Reads Books Aloud”. February 2014.
**TIME** (2014).“MIT Researchers Design Ring To Help Visually-Impaired People Read”. February 2014.
**Daily Mail** (2014).“The ring that READS for you: Finger-worn gadget reads aloud when you point at words - and can even translate books”. February 2014.
**RazorTV** (2013).“Stick-on device helps the deaf to ‘hear’”. May 2013.
**Gizmag** (2012).“Camera-toting EyeRing could help blind people to ‘see’ objects”. August 2012.
**Technology Review** (2012). “Augmented Reality, Wrapped Around Your Finger”. August 2012.
**Engadget** (2012). “EyeRing finger-mounted connected cam captures signs and dollar bills, identifies them with OCR (hands-on)”. April 2012.
**National University of Singapore Research Gallery** (2009). “New technology to help the deaf enjoy music”. July 2009.
**National University of Singapore Research Gallery** (2009). “Hearing through sight”. June 2008.

## Books, Magazines and Newspapers

**Listener Magazine** (2019). “How an Auckland lab is using tech to help deaf people experience music.” October, 2019.
**Metro Magazine, People to Watch** (2018). “How inventor Suranga Nanayakkara is humanising technology.” August, 2018.
**Straits Times, Singapore** (2016). “Ring helps people ’see’, thanks to grant”. September 2016.
**Bright 2 by Frame Publishers** (2015). “Architectural Illumination and Light Installations”. Carmel McNamara. Frame Publishers. ISBN: 9491727419.
**Straits Times, Singapore** (2014). “Wear this ring to listen what’s written”. August 2014.
**Lianhe Zaobao, Singapore** (2014). “300 Students Unite To Light-up Marina Bay”. February 2014.
**Straits Times, Singapore** (2013). “Wireless device lends a listening ear”. May 2013.
**Innovation: The magazine of Research & Technology** (2010). “New Technology to Help the Hearing Impaired Enjoy Music”. December 2010.
**Straits Times, Singapore** (2009). “A chair that’s music to deaf ears”. July 2009.
**The Island, Sri Lanka** (2008). “Haptic Chair hearing for the deaf”. December 2008.

## Television and Radio

**TVNZ** (2018).“The FingerReader”, Sunday Program. August 2018. `https://www.tvnz.co.nz/shows/sunday/innovate---new/the-finger-reader`
**BBC** (2016).“Horizons”, Sharper Senses: Devices mimicking our natural senses. June 2016. `http://www.bbc.com/specialfeatures/horizonsbusiness/seriessix/sharper-senses/?vid=p03xpgvm`
**CCTV** (2016).Technology enables people with disabilities. Feb 2016. `http://english.cntv.cn/2016/02/23/VIDEADIxyUqgEQ0Ya9RRn9Pj160223.shtml`
**Japanese TV program Gloval vision** (2014).“Inventor”, “Global Vision” documentary program. September 2014. BS TwellV World High Definition Television, Inc. `www.twellv.co.jp/minogashi/flv_gv_149_1m.html`
**Fox Business News** (2014).“Inventor”, “Global Vision” documentary program. September 2014. BS TwellV World High Definition Television, Inc. `www.twellv.co.jp/minogashi/flv_gv_149_1m.html`
**Fox Business News** (2014). “Wearable device helps you read with your finger”. February 2014.
**SUTD Video Series** (2012). “Prof Suranga - Against the Odds”. August 2012.
**Sri Lanka Rupavahini** (2010). “Interview at Adaraneeya Yawwanaya”. April 2010.
**RTL,CVB TV** (2014).“Der Ring, der lesen kann [The ring that can read]”. August 2014.
**Fox 10** (2014).“New Invention: FingerReader”. July 2014.
**c|net** (2014).“Tomorrow Daily: Reading with Your Finger”. July 2014.
**Associated Press)**.“Seeing-Eye Ring Helps Blind Read With Finger”. July 2014.
**Reuters Videos** (2014).“A ring that reads text for the blind”. 2014.
**RazorTV** (2013).“Stick-on device helps the deaf to hear” July 2013.