

CHANG HEE LEE PhD FRSA

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EDUCATION

Royal College of Art (RCA), London, UK

PhD 2014 - 2018

Innovation Design Engineering, School of Design
Supervisors & Advisor: Dr. Dan Lockton, Dr. John Stevens and Professor Ashley Hall

Doctoral Thesis: Synaesthesia Materialisation: Approaches to Applying Synaesthesia as a Provocation for Generating Creative Ideas within the Context of Design

Goldsmiths, University of London, UK

MA 2012 - 2013

Design Critical Practice, School of Design

Central Academy of Fine Arts (中央美术学院), Beijing, China

BA 2005 - 2009

Industrial Design, School of Design

Beijing Huijia Private School, Beijing, China

High School 2003 - 2005

One year early graduation / Grade skipping

ACADEMIC APPOINTMENTS

Royal College of Art (RCA), London, UK *October 2018 - Present*

**Innovation Design Engineering, School of Design—with Imperial College London (ICL)
Tutor (equivalent to US Assistant Professor)
2nd year Programme Leader**

- Head of 2nd year IDE programme.
- Organise lectures, weekly tutorial schedules and events.
- Direct and curate exhibition spaces for the programme.
- Supervise PhD students
- Assess students' projects and thesis.
- Develop departmental research and continue personal research in synaesthesia, HCI, interaction design, creativity and experience design.
- Support design and technical aspects for students' projects.
- Run and coach project collaboration between RCA and CERN in Geneva.

Royal College of Art (RCA), London, UK *February 2020 - July 2020*

**Design Product, School of Design
Visiting Lecturer (equivalent to US Adjunct Faculty)**

- Supported tutorials-based teaching to postgraduate students.

Royal College of Art (RCA), London, UK *August 2016 - March 2017*

Innovation Design Engineering, School of Design—with Imperial College London (ICL)

Visiting Lecturer (equivalent to US Adjunct Faculty)

- Give and organise weekly tutorials to postgraduate students for the project—Grand Challenge
- Support design and technical aspects for students' projects.
- Create films for project briefs.
- Set up exhibition space.
- Record student activities.

GUEST TEACHING

Carnegie Mellon University, Pittsburgh, USA *April 2017*
Guest Instructor, School of Design

- Syllabus: Spring 2017: Environments Studio IV: The Invisible
(Workshop: creating robots using synaesthesia as provocation)

HONORS / NOMINATIONS / AWARDS

Nominated by the Royal Society of Arts (RSA), London, UK *2020*
Fellow (Invited) of the Royal Society of Arts (FRSA)

Awarded by ACM SIGCHI Designing Interactive Systems (DIS 2018), Hong Kong *2018*
Best Provocation Award (Top 2%)—DIS 2018, PWIP

Nominated by Overseas Korean Foundation (OKF), Seoul, South Korea *2016*
Korean Future Leader

Nominated by UK Design Council, London, UK *2015*
70 Ones To Watch - 70 emerging design talent that will shape UK's design future.

Nominated by Daum Media, Seoul, South Korea *2015*
Today's Figure

Awarded by International Design Award (IDA), Los Angeles, USA *2014*
Silver Prize

Awarded by A'Design Award, Milan, Italy *2013*
Bronze A'Design Award

TALKS

MIT Media Lab, Cambridge, Massachusetts, USA *May 2021*
Talk for the SpaceCHI 2021 workshop at the Conference on Human Factors in Computing Systems (CHI) of the Association for Computing Machinery (ACM)

Harvard University, Cambridge, Massachusetts, USA *October 2017*

Guest speaker for the Twelfth National American Synaesthesia Association Conference.

Institute of Philosophy, University of London, UK *May 2017*

Symposium contributor for the Open Senses Festival.

Carnegie Mellon University, Pittsburgh, USA *April 2017*

Synaesthesia as inspiration

Royal College of Art, London, UK *December 2016*

Synaesthesia as provocation

University College London (UCL), London, UK *September 2016*

Guest speaker for workstations, Science has No Borders

University College London (UCL), London, UK *August 2016*

Guest speaker for a film night – Film: Like Water for Chocolate

Royal College of Art & University of Oxford, UK *July 2016*

Symposium organiser and presenter for the joint symposium between the Royal College of Art and the University of Oxford - Crossing Over: The Art & Science of Multisensory Perception.

Future Leader Conference, Seoul, South Korea *October 2015*

Conference keynote speaker

Camden Arts Centre & Kingsgate Workshop Trusts, London, UK *June - July 2015*

Symposium keynote speaker for the The Lab Project: Multisensory Perception and Synaesthesia

REVIEWING & JUDGING

IASDR 2021—Associate Chair *2021*

DRS (Design Research Society)—Reviewer *2021*

Journal of Textile Design, Research and Practice—Reviewer *2020*

ACM DIS2020—Jury Member for ACM DIS2020 Student Design Competition *2020*

ACM DIS2019—Reviewer for Pictorial Papers for ACM DIS2019 *2019*

CURRENT PHD STUDENTS

Brendan Commene, Helen Hamlyn Design Centre & School of Design, Royal College of Art. *2020* –

Research Keywords: Dementia, Assistive Technology, Design, Human-Interaction, Tool, Human Factors etc.

Yuqian Sun, Computer Science Research Centre (CSRC) & School of Design, Royal College of Art. *2021* –

Research Keywords: AI, Game, Interaction Design, Human-Computer Interaction, Design etc.

PUBLICATIONS (Conference & Journal)

1. Lee, C.H and Balint, (2021). Martian Delight: Exploring Qualitative Contact for Decoupled Communications, **Acta Astronautica** (Upcoming: will be published soon)
2. Kim, R, Pschetz, L, Linehan, C, Lee, C.H, and Poslad, S. (2021). Archives in DNA: Workshop Exploring Implications of an Emerging Bio-Digital Technology through Design Fiction. **Mindtrek 2021 (Mindtrek '21)**, June 1–3, 2021, Tampere/Virtual, Finland. ACM, New York, NY, USA, 4 pages. <https://doi.org/10.1145/3464327.3464966>
3. Lee, C.H, Balint, T, Kim, R, and Sommer, B. (2021). Decoupled Communication System for Long-Duration Space Missions?. **SpaceCHI'21: Human-Computer Interaction for Space Exploration (CHI Workshop Position Paper)**, May 14, 21. ACM, New York, NY, USA.
4. Lee, C.H, and Balint, T, (2020). Martian Delight: Exploring Qualitative Contact for Decoupled Communications, **71st International Astronautical Congress (IAC)**, Dubai, UAE.
5. Gong, W.L, Xiao, L, Wang, X.H, and Lee, C.H. (2020). Dots — An Inclusive Natural User Interfaces (NUI) for Spatial Computing, **ACM SIGCHI MobileHCI'20**, Oldenburg, Germany. DOI: <https://doi.org/10.1145/3406324.3410715>
6. Sommer, B, Lee, C.H, Nat, M, and Torrisi, V.S, (2020) Immersive Design Engineering, **Electronic Imaging**, (SD&A), XXXI, pp. 265-1-265-16(16).
7. Lee, C.H, Lockton, D, Stevens, J, Wang, S.J, and Ahn, S.H. (2019). Synaesthetic-Translation Tool: Synaesthesia as an Interactive Material for Ideation, **ACM CHI'19**, Glasgow. DOI: <https://doi.org/10.1145/3290607.3312849>
8. Balint, T and Lee, C.H, (2019). Pillow Talk—Curating Delight for Astronauts, **Acta Astronautica**, Volume 159, Pages 228-237. DOI: <https://doi.org/10.1016/j.actaastro.2019.03.048>
9. Wang, S.J, Zhang, L, Lee, C.H, and Moriarty. P. (2019) The Scope of Innovative Design In Enhancing Energy Efficiency, **International Conference on Applied Energy (ICAE)**, Västerås, Sweden.
10. Lee, C.H, Lockton, D and Kim, J.E, (2018). Exploring Cognitive Playfulness Through Zero Interactions, **ACM SIGCHI DIS'18**, Hong Kong. DOI: <https://doi.org/10.1145/3197391.3205413> **** (Best Provocation Award—top 2%)****
11. Lee, C.H and Lockton, D, (2018). Silent Scene, **ACM Interactions'18 Demo**, 25, 6, 10-13. DOI: <https://doi.org/10.1145/3279993>

12. Balint, T and Lee, C.H., (2018). Pillow Talk—Curating Delight for Astronauts, **69th International Astronautical Congress (IAC)**, Bremen, Germany.

13. Lee, C.H., (2018). Synaesthesia Materialisation: Approaches to Applying Synaesthesia as a Provocation for Generating Creative Ideas within the Context of Design, **PhD Thesis**, Royal College of Art, School of Design, Innovation Design Engineering Research, UK.

14. Lockton, D., Ricketts, D, Chowdhury, S.A and Lee, C.H., (2017). Exploring Qualitative Displays and Interfaces, **ACM CHI'17**, Denver, CO, USA. DOI: <http://dx.doi.org/10.1145/3027063.3053165>

15. Ferrarello, L., Hall, A, Kann, M and Lee, C.H., (2017). Collaborating Design Risk, **International Association of Societies of Design Research (IASDR)**, Ohio, USA.

16. Lee, C.H., (2017). Three Studies of Synaesthesia, **ACM Interactions '17 Demo**, 24, 3, 8-11. DOI: <https://doi.org/10.1145/3068337>

PUBLIC KNOWLEDGE EXCHANGE

SHOW RCA *2019*

Curated the whole show for the IDE programme

ACM CHI2019 *2019*

Poster Presentation

ACM DIS2018 *2018*

Poster Presentation

The Center SF, San Francisco, USA *2018*

Synaesthesia: Art, Love & Science

Rebecca Hossack Gallery, London, UK *2017*

Open Senses Festival

Lloyd's Register Foundation Headquarter, London, UK *2017*

Design For Safety at Sea

University College London (UCL), London, UK *2016*

Doing It Together Science (DITOs)

Royal College of Art (RCA), London, UK *2016*

Crossing Over: The Art & Science of Multisensory Perception

Royal College of Art (RCA), London, UK *2016*

Amnesty of Rejection Redux

Royal College of Art (RCA), London, UK *2016*

Work in Progress Show

Henry Moore Gallery, Royal College of Art (RCA), London, UK *2015*

Work in Progress Show

Former BBC Headquarter, London, UK *2013*

Touch Art Fair

Hoxton Gallery, London, UK *2013*

London Design Festival

Mood Museum of Design, Milan, Italy *2013*

A'Design Award

Mumbai, India *2013*

Product Design Days

Gdansk, Poland *2013*

About Design Expo

Central Academy of Fine Arts, Beijing, China *2009*

Graduation Exhibition

PORTFOLIOS & PRESS & NEWS

<https://www.changheelee.com>

SKILLS

Embedded Systems:

Atmel AVR, PCB Design, EAGLE PCB, Arduino IDE, etc.

Fabrication:

3D Printing, CNC, Laster Cutting, Carpentry, etc.

Software:

EAGLE pcb, Rhino 3D, 3ds Max, V-Ray, Photoshop, Wondershare, Filmora, etc.

LANGUAGES

English

Fluent

Chinese

Fluent

Korean

Fluent

OTHER EXPERIENCE & ACTIVITIES

Swimming indoor marathon for people with diabetes

22miles (equivalent of swimming length from the UK to France), UK

February - May 2018

Librarian

Big Tree Library, Seoul, South Korea

November 2011 - June 2012

Civilian Document Analyst Assistant

Mandatory Military Service, Seoul, South Korea

October 2009 - October 2011

REFERENCES

Professor. Dan Lockton—Director of Imaginaries Labs & Assistant Professor at Eindhoven University of Technology & Courtesy Appointment at Carnegie Mellon University (CMU).
Contact Address: d.j.g.lockton@tue.nl

Professor. Ashley Hall—Head of Healthcare & Design (MRes) at the Royal College of Art.
Contact Address: ashley.hall@rca.ac.uk

Dr. Tibor Balint—Principal Researcher / Designer / Engineer at JPL NASA.
Contact Address: tibor.balint@jpl.nasa.gov