

## **Jim Tørresen Talks and Presentations** (see tutorials and pop-sci talks further down)

### **Invited scientific talks/keynotes**

- “From Adapting Robot Body and Control to Human–Robot Interaction”, **guest lecture at the University of Massachusetts Amherst, US** (UMass Amherst), 11 January 2023
- “Multi-Modal Sensing for Care Robots for Older People”, **First Symposium on Geriatrics, Garmisch-Partenkirchen – Germany**, 20 June 2022
- “Introduction to Research Visit to University of Oslo in Norway”, **guest lecture in Nagoya University, Japan**, 21 October 2022
- “Introduction to Research Visit to University of Oslo in Norway”, **guest lecture in Tsukuba University, Japan**, 18 October 2022
- “Research Ethics in AI and Robotics”, **dScience lunch seminar series (UiO)**, 5 May 2022
- “Ethical Perspectives of Robotics and AI - How to develop preferable system?”, a **guest lecture in the Computer and Society course at UFRGS, Brazil** 20 April, 2022 (online)
- “Research on health-related treatment and care technology – A technical and ethical view”, **Department of Informatics, UiO research seminar**, 22 March 2022
- “Sensing, acting and adapting in the real world”, **dScience lunch seminar series (UiO)**, 3 Feb 2022
- Jim Tørresen explains robots (in Norwegian), [NORA podcast, episode 6](#), 13 Dec 2022
- “How to achieve ethical artificial intelligence (AI) research and development?”, **NFEA Artificial Intelligence and Machine Learning Conference 2021**, Oslo, 27 October, 2021
- “INTROMAT: INtroducing personalized TRreatment Of Mental health problems using Adaptive Technology.” Guest lecture in the **NTNU course IT6104 - Databaseteknikk for helsearbeidere**, 16 April 2021.
- «Kunstig intelligens – allsidig i metoder og anvendelser», the [SW2021 conference](#) organised by «Den Norske Dataforening (DND)», 11 February 2021.
- “Sensing Human State with Application in Older People Care and Mental Health Treatment”, [AI4Health Lecture Series](#); Université du Luxembourg, 10 March 2020
- “A collaboration journey to Japan that started for more than 25 years ago”, **Norway-Japan Academic Network**; Oslo, 26 February 2020
- “Intelligent Robots and Systems for Foundational and Applied Healthcare Research”, **Guest lecture at Nagoya University**; 28 January 2020
- “Interdisciplinary Research Collaboration in Rhythm, Time and Motion.” **Guest lecture at Toyohashi University of Technology**; 27 January 2020
- “AI Ethics: How to achieve ethically good artificial intelligence research and development.” [Chalmers AI Ethics seminar series](#); Chalmers University of Technology, Gothenburg, Sweden, 7 January 2020
- “Adaptive Robot Body and Control for Real-World Environments”. co-presenters: Kyrre Glette and Kai Olav Ellefsen, **JPL Robotics Section seminar**; Pasadena, US, 28 October 2019
- “Intelligent, Adaptive Robots in Real-World Scenarios”, co-presenters: Kyrre Glette and Kai Olav Ellefsen. **UBER AI Labs Seminar**; San Francisco, US, 25 October 2019

- “Introduction to Different Challenges in Ethical AI and Possible Ways of Addressing Them” keynote at **IJCNN** (International Joint Conference on Neural Networks) **workshop “Ethical AI Challenges”**, Budapest, Hungary, 19 July 2019
- “Design and Control of Robots for Real-World Environment”, **Eindhoven University of Technology**, Netherlands, invited talk at the opening of their: The Future of Social Robotics – opening of the Social Robotics Lab, 28 June 2019
- “Ethics and artificial intelligence in healthcare”, at the conference **Artificial intelligence in healthcare** in Bodø, Norway, 18-19 June 2019
- “Intelligent and Adaptive Robots in Real-World Environment”, **SAINT Workshop on Self-aware and Autonomous Systems**, Southern University of Science and Technology (SUSTech), Shenzhen, China, 5-6 May 2019
- “Supporting Older People with Robots for Independent Living “, **3rd International Workshop on Advanced Algorithms and Control Engineering (IWAACE 2019)**, in Sanya, China, January 18-19, 2019
- "Making Robots Adaptive and Preferable to Humans”, guest lecture **Univ. of Hertfordshire**, UK, 7 Jan 2019
- “UiO Visit to UFRJ – An overview of research”, guest lecture **Universidade Federal do Rio de Janeiro (UFRJ)**, Brazil, 6 Dec 2018
- “Artificial Intelligence Applied for Real-World Systems”, guest lecture **Brno University of Technology**, Czech Republic, 7 October, 2018
- "Biologically inspired computing for problem solving”, the Norwegian Geotechnical Institute seminar on Machine learning, Oslo, 22 Oct 2018
- “Developing Robot Companions for Elderly”, **2018 China (Shenyang) World Congress of Robotics (WCR 2018)**, 1 September 2018
- “Intelligent Systems for Medical and Healthcare Applications”, **Simula@OsloMet seminar series**, 23 August 2018.
- “Equipping Systems with Forecasting Capabilities”, **Universidade Federal do Rio Grande do Sul (UFGRS)**, Porto Alegre, Brazil, 12 July, 2018
- ”Introducing Mental Health through Adaptive Technology via Sensor Data and Machine Learning: The INTROMAT project.”, **University of Michigan**, 5 June 2018.
- “Ethical Robots and Autonomous Systems”, **Autonomy Day**, OsloMet, 3 May 2018
- “Artificial Intelligence – State-of-the-art”, **Research Council of Norway**, Lysaker, Oslo, 5 March 2018.
- “Intelligent Machines – Opportunities and Challenges”, **Kyushu University**, Japan, 5 October, 2017
- “Artificial Intelligence and examples of Real-world Applications”, **National Institute of Informatics**, Tokyo, Japan, 3 October, 2017
- ”Artificial Intelligence by Nature Inspired Computing”, **Agri-Robotics Summer Camp**, Ås, Norway, 4 August 2017
- “Sensing and Reasoning Technology Applied within Mental Health Treatment and Elderly Care Robot Companions”, **Graz University of Technology**, Austria, 30 June 2017.
- ”Robotics activity at Robotics and Intelligent Systems Group University of Oslo”, **Institute For Robotics And Mechatronics at Joanneum Research**, Klagenfurt, 29 June 2017.

- “Artificial intelligence - a human technology?” Invited talk at **TEDx Oslo**, May 3, 2017.
- “**Artificial Intelligence – What is it and what can it be applied to?** Thematic meeting about Artificial Intelligence, **The Norwegian Society of Engineers and Technologists (NITO)**, Oslo, 27 April 2017
- “Making Systems Intelligent by Biologically Inspired Computing”, Invited talk at **Brazilian Institute of Robotics (BIR)**, SINAI CIMATEC, Salvador, Brazil, April 6, 2017.
- “Opportunities and Challenges with Artificial Intelligence”, Invited talk at **Universidade Federal do Rio Grande do Sul (UFGRS)**, Porto Alegre, Brazil, April 4, 2017.
- “Introduction to Machine Learning for Problem Solving”. Invited talk at **Norwegian Geotechnical Institute (NGI)**, Oslo, 10 January 2017
- “Making Technology Adaptive by Biologically Inspired Computing”, Invited talk at **Hong Kong University**, 24 October 2016.
- “Unleashing Artificial Intelligence in the Real World”, School of Computer Science, Invited talk at **University of Manchester**, UK, 5 October 2016.
- “Smartphone Analysis of Human Behaviour for Interactive Music Systems”, **4th Conference of the European Society for Research on Internet Interventions (ESRII)**, Bergen, 22-23 September 2016
- “Artificial Intelligence in Autonomous Systems”, Norwegian Society of Automatic Control (NFA) *Conference on Autonomy*, Stavanger, 16-17 May, 2016
- “Artificial intelligence and evolutionary algorithms analysis and solution tools”, Norwegian Society of Automatic Control (NFA) **Conference on decision support and alarm systems**, Oslo, 4 - 5 November 2015
- “Artificial Intelligence: Can machines become as intelligent as humans?” Invited talk at board meeting at the **Norwegian Board of Technology**, Oslo, 19 June 2015
- “Robotics in IoT”, **HiPEAC Computing Systems Week**, Oslo, May 2015
- “Introduction to Artificial Intelligence”, **Shell Norway**, 28 October 2014.
- “Introduction to Run-time Evolvable and Reconfigurable Hardware”, Guest lecture in course Advanced reconfigurable Systems (ARS, code 32437) 22 Nov 2012 at **Universidad Autónoma de Madrid**, Spain.
- “Self-aware and Self-expressive Active Music Systems”. [Awareness Summer School \(AWASS 2012\)](#), 10-16<sup>th</sup> June 2012, Edinburg, Napier University
- “Can Run-time Reconfigurable Hardware be more Accessible?” Invited talk at **2011 International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA’11)**, July 18, 2011, Las Vegas, US.
- “Exploring Bio-Inspired Computing for Robotics and Intelligent Systems”, Invited talk at **University of Vermont**, US, April 8th, 2011.
- “Music Technology based on Robotics and Intelligent Systems”, *Invited talk* at **McGill University**, Canada, April 7th, 2011.
- “Making Run-time Reconfigurable Hardware more Useful”, *Invited talk* at **University of Southern California (USC)**, LA, CA. January 28, 2011.
- “Robotics and Intelligent Systems Research at University of Oslo”, **Jet Propulsion Laboratory/California Institute of Technology**, Pasadena, CA, January 26, 2011.

- “Robotics at University of Oslo”. **The Norwegian Robotics Workshop**, Trondheim, Norway, 30 Nov 2011.
- “Robotics and Intelligent Systems research group (ROBIN at UiO)”, *Invited talk at [Cornell Computational Synthesis Laboratory](#)*, **Cornell University**, August 30th, 2010.
- “A New Project to Address Run-Time Reconfigurable Hardware Systems” *Invited participant/speaker at [Dagstuhl Seminar 10281: Dynamically Reconfigurable Architectures](#)*, Schloss Dagstuhl, Germany, July 11 – 16, 2010.
- “Adaptable System on Chip”, Keynote at **Reconfigurable Communication-centric Systems on Chip Conference (ReCoSoC'10)**. May 17-19, 2010, Karlsruhe, Germany.
- “Evolutionary Computing Applied to Hardware and Robotics”. *Invited talk at [Faculty of Information Technology, Brno University of Technology \(BUT\)](#)*, Brno, Czech Republic, January 20th, 2009.
- ”Adapting Systems by Evolving Hardware”. *Invited talk in [Computer Systems Colloquium \(EE380\)](#)*, Stanford University. January 23rd, 2008.
- Research in Robotics & Intelligent Systems Group, *Invited talk at [Cornell Computational Synthesis Laboratory](#)*, **Cornell University**, January 20th, 2008
- “Evolutionary Computing and its Application to Signal and Image Classification in Hardware.” Invited talk at **Fudan University**, China, September 17th, 2007.
- “A Survey on Parts Obsolescence Challenges for the Electronics Industry”, **Component Obsolescence Group International Conference (COG'07)**, UK.
- “Evolvable Hardware Supplementing the Hardware Designer”. **Invited talk to First Workshop on Topics of the nEUro-IT.net Roadmap**, Antwerp, 21/22 April 2006.
- “Context Switching Reconfigurable Logic”. Dagstuhl Invited participant/speaker at **Dagstuhl Seminar 03301: Dynamically Reconfigurable Architectures**, Schloss Dagstuhl, Germany, July 25-25, 2003.

## Tutorials

- “Tutorial: Ethical Challenges and Opportunities within Computational Intelligence System Development”, co-organised with Xin Yao, **[2022 IEEE Symposium Series On Computational Intelligence \(SSCI\)](#)**, 4th December 2022, Singapore
- “Tutorial: Ethical, Legal and User Perspectives on Robots and Systems (ELAUPORAS) – Assessments and Potential Measures Related to Robots and Systems”, c-organised with Atsushi Nakazawa, Diana Saplacan, Edson Prestes, Tobias Mahler and Yueh Hsuan Weng, **[35<sup>th</sup> IEEE/RSJ International Conference on Intelligent Robots and Systems \(IROS-2022\)](#)**, 23 October 2022, Kyoto, Japan
- “Tutorial: Rhythm in Development and Learning – Similarities and Differences Between Humans and Technology”, co-organised with Dongho Kwak, **[2022 IEEE International Conference on Development and Learning \(ICDL 2022\)](#)**, London, UK, 12 September 2022
- “Tutorial: Ethical and Technical Challenges and Considerations of Robots and Systems – Session I: Ethical and technical perspectives”, co-organised with Diana Saplacan, Phoebe Li and Yueh-Hsuan Weng, **[31st IEEE International Conference on Robot & Human Interactive Communication \(RO-MAN 2022\)](#)**, Napoli, Italy, August 2022
- “Tutorial: Ethical Challenges in Computational Intelligence Research”, **IEEE World Congress on Computational Intelligence (WCCI 2022)** Padova, Italy, July, 2022

- “Tutorial: Ethical Considerations in User Modeling and Personalization (ECUMAP)”, co-organised with Atsushi Nakasawa, [30th ACM Conference on User Modeling, Adaptation and Personalization \(UMAP 2022\)](#), Barcelona, Italy, July 2022
- “Ethical challenges for Autonomous and Multiagent Systems”, at the [21th International Conference on Autonomous Agents and Multiagent Systems](#), Auckland, New Zealand, 9 May 2022 (online)
- ”Ethical Considerations in the Development and Use of Neural Information Processing Systems”, at the **28th International Conference on Neural Information Processing (ICONIP2021)**, Bali, Indonesia (online), 8 December 2021
- “Robots and Systems Ethical Challenges”, a part of the tutorial “[Ethical and Legal Assessments Related to Robots and Systems](#)” organised by the VIROS project at the [2021 IEEE/RSJ International Conference on Intelligent Robots and Systems \(IROS 2021\)](#), 27 September 2021 (other presenters Diana Saplacan, Mona Naomi Lintvedt, and Tobias Mahler).
- “Ethical and Technical Perspectives on Care Robots”, a part of the tutorial “[Robots and Society: Ethical, Legal, and Technical Perspectives on Integrating Robots in the Home- and Healthcare Systems and Services \(RO-SO\)](#)” at the [30th IEEE International Conference on Robot and Human Interactive Communication Conference \(RO-MAN\)](#), 12 August 2021 (other presenters were Diana Saplacan, Mona Naomi Lintvedt, and Tobias Mahler).
- “[Intelligent System Research – AI Ethical Challenges and Opportunities](#)”, tutorial at the [International Joint Conference on Neural Network \(IJCNN\)](#), 23 July 2021.
- “Ethical Considerations in User Modeling and Personalization”, tutorial at the [29th Conference on User Modeling, Adaptation and Personalization \(UMAP\)](#), (online) 21 June 2021.
- “[Ethical Considerations in Robotics and Automation](#)”, tutorial at the [International Conference on Robotics and Automation \(ICRA\)](#), (online) 4 June 2021.
- “[Explainability, Trust and Ethics for Robots and Autonomous Systems](#)”, tutorial at the [20th International Conference on Autonomous Agents and Multiagent Systems \(AAMAS\)](#), (online) 3 May 2021.
- “Ethical Challenges and Opportunities within Computational Intelligence System Development”, tutorial at the [IEEE Symposium Series on Computational Intelligence \(SSCI\)](#), (online) 4 December 2020.
- “Ethical Considerations in User Modeling and Personalization”, [tutorial](#) at **ACM 28th International Conference on User Modeling, Adaptation and Personalization** (ACM UMAP 2020), July 12th-18th 2020, Genoa, Italy (virtual conference due to the corona pandemic)
- “Addressing Ethical Challenges within Evolutionary Computation Applications”, [tutorial](#) at **Genetic and Evolutionary Computation Conference** (GECCO 2020), July 8th-12th 2020, Cancun, Mexico (Virtual conference due to the corona pandemic)
- “Explainability, Trust and Ethics for Robots and Autonomous Systems”, [tutorial](#) (half day) at **Nineteenth International Conference on Autonomous Agents and Multi-Agent Systems**, 9-13 May 2020, Auckland, New Zealand (overså innsending av video)
- Creative Prediction with Neural Networks (co-organized with Charles P. Martin and Kyrre Glette) **ALife 2018: The 2018 Conference on Artificial Life**. Tokyo
- Prediction, Interaction, and User Behaviour (co-organized with Enrique Garcia-Ceja, Kai O Ellefsen, Charles P. Martin), **IEEE World Congress on Computational Intelligence (WCCI)** July, 2018
- A Run-Time Evolvable Hardware Tutorial, Jim Torresen, **2011 International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA’11)**, Las Vegas, USA.
- Evolvable Hardware (co-organised with Lukas Sekanina, Brno University of Technology). **2009 NASA /ESA Conference on Adaptive Hardware and Systems (AHS-2009)**, San Francisco, July, 2009.
- Evolvable Hardware (co-organised with Lukas Sekanina, Brno University of Technology). **IEEE Congress on Evolutionary Computation** (CEC-2009), Trondheim, May 2009.

- Run-Time Reconfigurable and Adaptive Hardware. **2008 NASA /ESA Conference on Adaptive Hardware and Systems (AHS-2008)**, The Netherlands, June 2008.
- Evolvable Hardware (co-organised with Kyrre Glette, University of Oslo (Norway) and Marco Platzner and Paul Kaufmann, University of Paderborn (Germany)), **21st International Conference on Architecture of Computing Systems, ARCS'08**. Dresden, Germany, February 25-28, 2008.
- Reconfigurable Computing. **2nd NASA /ESA Conference on Adaptive Hardware and Systems (AHS-2007)**. Edinburgh, August 2007.
- Reconfigurable Computing. **ECSIS Symposium on Intelligent Systems for Defense and Security (ISDS)**. September 20-21, 2006, Iasi, Romania
- Reconfigurable Computing by Reconfigurable Logic. **1st NASA/ESA Conference on Adaptive Hardware and Systems (AHS'2006)**. June 2006, Istanbul, Turkey.
- An Evolvable Hardware Tutorial. In the **14th International Conference on Field Programmable Logic and Applications (FPL'2004)**, August 2004, Antwerp - Belgium.
- Speeding Up Neural Network Computation by Parallel Processing. Tutorial at **International Conference on Neural Information Processing (ICONIP'97)**, November 1997, Dunedin, New Zealand.

## Popular science talks (in Norwegian)

- Artificial Intelligence – diverse in methods and applications, Research Group Leader Seminar for **Klinikk for Laboriemedisin** (KLM, OUS), Sundvolden, 12 October 2023
- Introduksjon til kunstig intelligens og maskinl ring – muligheter og utfordringer, **Diagnostics and Technology Division (Diagnostikk- og teknologidivisjonen, DDT)** annual research and innovation seminar, Oslo, 11 October,
- “Hva vil roboter og kunstig intelligens kunne l se for v r helse og har vi noe   frykte?”. **H yres helse- og omsorgsfraksjon p  Stortinget**, helseteknologiseminar i H yres Hus, 12. November Oslo
- Kunstig intelligens og anvendelser innen helse og omsorg, **Wolters Kluwer seminar**, AI inom h lsov rd, Litteraturhuset, Oslo, 23 Oct 2018.
- Kunstig intelligens – hvem, hva og hvor? **Evry seniorforening (norsk)/Evry Senior Association** meeting, 18 October 2018
- Hva er kunstig intelligens? **Stiftelsen Nasjonalt Medisinsk Museum** seminar med tittel "Kunstig intelligens i diagnose og behandling av sykdom.", Nasjonalbiblioteket, Oslo, 16 October 2018
- Roboter kommer n rmere – skal vi glede eller grue oss? Invitert foredrag p  **Oslo-Kvinne-og-familieforbund** seminar, Sundvolden, 14 April 2018.
- Kunstig Intelligens – L rende og tilpasningsdyktig teknologi. **Senioruniversitetet i Lier**, Drammen, 13 April 2018
- Artificial Intelligence – State-of-the-art, Internal talk at the **Research Council of Norway**, including attendees from Norwegian Board of Technology (Teknologir det) and representatives from government ministries, 18 March 2018
- Presentation of the MECS prosjektet at **Kampen Omsorg+** in Oslo, 6 March 2018 (together with Trenton Wade Schulz, Weria Khaksar, Md Zia Uddin, Vegard D nnem S yseth)
- Interview by Tore Tenn e, Director at **Norwegian Board of Technology**, about Artificial Intelligence before screening of the movie «Her» at Cinemateket, Oslo, 2 February, 2017
- L rende og tilpasningsdyktig teknologi, **Akersborg Rotaryklubb**, Oslo, 9 Nov 2015
- Kunstig intelligens og evolusjon re algoritmer som analyse- og l sningsverkt y, **Norsk Forening for Automatisering (NFA) konferanse for Beslutningsst tte og alarmsystemer**, Oslo, 4-5 Nov 2015.
- KUNSTIG INTELLIGENS: Kan maskiner bli like intelligente som mennesker? Har vi noe   frykte?

**Norwegian Board of Technology (Teknologirådet)**, Oslo, 19 June 2015

- Data fra tidligere pasienter brukt til å effektivisere justering av nivåer for cochlea-implantat for nye pasienter. **Norsk Forening for Automatisering (NFA) konferanse for Helse og medisinsk teknologi**, Stavanger, 27-28 May, 2015
- Kunstig Intelligens. **Oslo Bokfestival**, 12-13 Sept 2014
- Artificial Intelligence (in Norwegian), [Akademisk Vorspiel](#), organized by the Norwegian student society, 21 March, 2014
- Robotikk og Intelligente Systemer (ROBIN). **Fredagsforum Forsvarets Forskningsinstitutt (FFI)**, 8 Mai 2009.

## **Others scientific talks**

- Learning FPGA Design Through Internet and Remote Labs. *FPGA-forum 2014*, Trondheim.
- New Tools and Techniques for Building Run-time Reconfigurable Systems. *FPGA-forum 2012*, Trondheim.
- Intern og delvis rekonfigurering på FPGA. *FPGA-forum 2008*, Trondheim.
- Run-Time Reconfigurable Hardware. *FPGA-forum 2007*, Trondheim.
- Er “reconfigurable computing” klar for kommersiell anvendelse? *DAK/FPGA-forum 2005*, Trondheim, oktober 2005.
- Utgåtte komponenter – et problem for norsk elektronikkindustri? Det 58. *Studemøtet Elektronikk og Data*, Sundvolden 15.-16. juni 2005.
- Reconfigurable Computing at UiO – recent activities. *DAK-forum 2004*, Trondheim, oktober 2004
- Adaptiv dataprosessering i rekonfigurerbar logikk. *DAK-forum 2003*, Trondheim, oktober 2003.
- Evolusjonær maskinvare. Det 54. *Studemøtet Elektronikk og Data*, Lillehammer 14.-15. juni 2001.

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