PANEL SESSIONS

HOW ARE WE DRIVING ADOPTION OF WIRELESS POWER ACROSS SECTORS. AND WHERE ARE WE LAGGING BEHIND?

WEDNESDAY, JUNE 4, 2025
Aula 7, 10:45 – 12:15

Organizer and Moderator: **Dinesh Kithany** (WAWT, UK)

Speakers: Energous (TBD)
Asterlink (TBD)
Delta Electronics (TBD)
InductEV (TBD)
WAWT (TBD)

PRESENT AND FUTURE HIGH POWER STATIC AND DYNAMIC WPT SOLUTIONS TO ENABLE A TRUE WIRELESS ECOSYSTEM?

WEDNESDAY, JUNE 4, 2025
Aula 7, 14:00 – 15:30

Organizers: **Grant Covic** (University of Auckland, New Zealand)
Andreas Wendt (Electreon, Germany)

Moderator: **Grant Covic (**University of Auckland, New Zealand)

Speakers: Mike Masquellier, Chief Comercial Officer ASPIRE
Nobuhisa Yamaguchi, Project General Manager of Dynamic Wireless Power Transfer development, DENSO Corporation
Sebastian Visser, Senior Manager System R&D units. DENSO Corporation
Christian Koebel, Technology Director ENRX
Andreas Wendt, Managing Director, Electreon
Gabriel Samuelsson, Lead EU Engineer, InductEV

Statements about the companies

ASPIRE:
Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE) is a 4th generation National Science Foundation (NSF) Engineering Research Center (ERC) which conducts vital R&D to catalyze practical transitions to widespread electrification in transportation. ASPIRE initiatives enhance quality-of-life for all through improved air quality, economic opportunity, and access to clean, affordable transportation.
Over 400 global ASPIRE staff, faculty, and students work in sync towards the seamless integration of electrified transportation with interconnected intelligent systems infrastructure to provide an

inexpensive, seamless charging experience.
Multiple disciplines, including engineering, social science, policy, and business, contribute to the effort spanning 10 top-tier universities and 60+ industry, government, and non-profit organizations. They are joined by many community partners and advisors to provide a most comprehensive view of the electric transportation ecosystem and society. Visit aspire.usu.edu for more insights on the future of transportation.

DENSO Corporation:
Globally headquartered in Kariya, Japan, DENSO is a $47.2 billion leading automotive supplier that develops advanced technology and components for nearly every vehicle make and model on the road today. With manufacturing at its core, DENSO invests in around 180 facilities worldwide to provide opportunities for rewarding careers and to produce cutting-edge electrification, powertrain, thermal and mobility electronics products, among others, that change how the world moves. In developing such solutions, the company's 162,000 global employees are paving the way to a mobility future that improves lives, eliminates traffic accidents, and preserves the environment. DENSO have been developing Dynamic Wireless Power Transfer as a game-changing technology that promote electrification not only for BEVs but also for petrol/hydrogen fuel hybrid vehicles toward achieving carbon neutrality. For more information about DENSO's operations worldwide, visit https://www.denso.com/global.

ENRX:
ENRX a new brand with decades of experience in induction heating, wireless inductive charging and contactless power supply and a global green tech company on a mission to speed up the journey for a sustainable future. We offer inductive heating, charging and power transfer with low or no carbon footprint – technologies that provide value in manufacturing and mobility applications worldwide.

Electreon:
Electreon is transforming electric mobility with its pioneering wireless EV charging technology, designed for both in-motion (wireless EV charging roads) and stationary charging to support all EV classes (2-8). With 20+ projects across 8 countries, 32 patents, and a world record for the longest EV drive, Electreon has received accolades like TIME Magazine's 2021 Invention of the Year. Since going public in 2018, Electreon has built a network of 100+ partners, including global OEMs and infrastructure leaders. Its wireless charging, ideal for medium and heavy duty vehicles across public transit and logistics fleets, advancing sustainable, accessible mobility worldwide.

InductEV
InductEV is transforming EV charging with high-power wireless charging technology, now commercially deployed across more than 250 transit and freight vehicles in the U.S. and EU. The company is focused on developing wireless charging technology for high-utilization vehicles including autonomous fleets and urban taxi systems, with early deployments underway in cities like Gothenburg. Backed by over 100 global patents and a dedicated R&D center, InductEV leads in scalable, intelligent energy management for commercial fleets.

BIOGRAPHIES AND PHOTOS

Grant Covic

Grant is a full professor with the Electrical, Computer, and Software Engineering Department at The University of Auckland (UoA). He began working on inductive power transfer in the mid 90's, and in the 2000's began focusing on AGV and EV charging solutions. He has published more than 200 international refereed papers in this field, worked with over 30 PhDs and filed over 40 patent families, all of which are licensed to various global companies in specialised application fields. He co-foundered HaloIPT and was awarded the NZ Prime Minister's Science Prize, amongst others for successful scientific and commercialization of this research. He is a fellow of both Engineering New Zealand, and the Royal Society of New Zealand. Presently he heads inductive power research at the UoA, is directing a government funded research program on stationary and dynamic wireless charging of EVs within the road, while also leading the interoperability sub-team within the SAE J2954, J2954/2 and J2954/3 wireless charging standards for light, medium, heavy and dynamic power transfer to EVs.

Mike Masquelier

Michael holds the role of Chief Commercial Officer at ASPIRE, Utah State University's Engineering Research Center, which works to improve health and quality of life by catalyzing sustainable and equitable electrification across the transportation industries. Prior to his role at ASPIRE, Michael served as CEO and CTO at WAVE, where he led the team that developed today's market-leading wireless charging solutions for commercial electric vehicles. In leadership roles at Motorola, Michael architected a mobile sensing platform to serve the enterprise, consumer, and government markets. He holds a B.S.E.E. from the University of Illinois at Urbana-Champaign, an M.S.E.E. from Arizona State University and holds patents in wireless power transfer, power electronics and microelectronics. He is chair of the Wireless Charging Standards for the American Trucking Association and also serves as co-chair of the SAE J2954 Heavy Duty standards committee on wireless charging of electric vehicles.

Nobuhisa Yamaguchi

Mr. Nobuhisa Yamaguchi is a Project General Manager of Dynamic Wireless Power Transfer development department of DENSO CORPORATION in Japan, a globally leading automotive supplier aiming to be carbon neutral by 2035. To achieve this goal, he has been leading development of DWPT systems and components to promote electrification, and collaboration promotion toward achieving carbon neutral society by this game-changing technology, which contributes to the CN challenge faced not only by electric vehicles but also by all hybrid vehicles that use hydrogen or hydrocarbon fuels. Before joining DENSO, he engaged in the development of BEV and DC fast charging (currently CHAdeMO) at SUBARU.

Sebastian VISSER

Mr. Sebastian Visser is Senior Manager of the System R&D unit and is responsible for the Dynamic Wireless Power Transfer technical developments in DENSO International Europe BV. He is leading technical developments of Dynamic Wireless Power Transfer systems and components technology from DENSO's Aachen Engineering Center in Wegberg, Germany. Furthermore, he aims to contribute to European's carbon neutral society by working "hand-in-hand" with European partners to seamlessly integrate technology to the mobility needs of the future. Throughout his DENSO career he has been responsible for Gasoline and Diesel System R&D activities in DENSO. And more recently taking the responsibility for DENSO's Battery Electric Vehicle Energy Management R&D activities.

Christian Köbel

Christian is Director Technology at ENRX Group, a global leader in induction technology. He oversees the development and strategy of ENRX's Charge product line, driving cutting-edge innovations in inductive charging and power transfer solutions. Christian joined ENRX following the acquisition of IPT Technology, where he served as Chief Technology Officer. He has over 20 years of experience in electrical engineering, product development, and strategic leadership, Christian has been at the forefront of advancing sustainable technologies. His career began at Bombardier Switzerland in 2000, where he held key roles, including Director R&D Programme Management. In this role, he led the development of the ECO4 portfolio, introducing energy-efficient solutions across divisions. At Primove Technology, he drove the adoption of wireless charging systems as Director Technology and later as Managing Director of Bombardier Primove GmbH, where he shaped strategy, business growth, and global market expansion.

Christian holds a degree in Electrical Engineering and International Project Engineering from the University of Applied Sciences in Konstanz, Germany, and a Bachelor of Business Administration from GSBA Zurich. His international perspective is further enriched by academic experience at the University

of Cape Town, South Africa. At ENRX, Christian continues to push the boundaries of technology in the Charge division, delivering innovative solutions that shape the future of e-mobility and industrial applications. His deep expertise in R&D and business strategy positions him as a driving force behind sustainable, energy-efficient technologies.

Andreas Wendt

Dr. Andreas Wendt is the Managing Director of ElectReon Germany GmbH, subsidiary of Electreon Wireless LTD, the industry pioneer of dynamic wireless charging and electric road systems. Before his engagement with ElectReon, Andreas led several wireless charging projects at Toyota Motorsports GmbH and Toyota Gazoo Racing. Prior to Toyota, he worked for Ford Motor Company in the field of software quality. His experience spans magnetic and system simulations, prototyping, data analysis, and WPT system architecture. Wendt holds a Ph.D in Nuclear Structure Physics and a M.Sc in Experimental Physics from the University of Cologne.

Gabriel Sammuelsson

During the last ten years Gabriel Samuelsson has worked with Wireless Charging development for Qualcomm Halo, CEVT, NEVS, SiNIX and InductEV. He has developed, designed and integrated wireless charging systems for more than 20 vehicle models from some of the largest OEMs in the world. During the last four years, Samuelsson led InductEV's high power wireless charging system installations in Oslo and Gothenburg for Jaguar I-Pace and Volvo XC40 taxi vehicles. These are the first public high power wireless charging sites for Taxi vehicles in the world and Samuelsson is responsible for leading the projects all the way from civil work to commissioning. He is also the inventor of a dozen patents in the field of magnetic design for wireless charging. Samuelsson has more than 16 years of experience in Automotive and EV development from Autoliv, Volvo Cars and Think where he was part of a small Norwegian team that developed the first fully homologated electric vehicle in Europe that he's still driving to this day. Furthermore, he has a Master of Science degree in Mechanical Engineering from The Royal Institute of Technology and Chalmers University in Sweden.

IEEE INTER-SOCIETY PANEL: WPT and SUSTAINABILITY

THURSDAY, JUNE 5, 2025
Aula 7, 8:45 – 10:15

Organizers: **Dominique Schreurs** (KU Leuven, Belgium)
Nuno Carvalho (University of Aveiro, Portugal)

Speakers:

MTT-S: Naoki Shinohara

PELS: Aiguo Patrick Hu
CRFID: Greg Durgin
EMC-S: John La Salle
AP-S: Paolo Nepa
Industry: Dinesh Kithany

RF WIRELESS POWER: TECHNOLOGY, APPLICATIONS, AND LESSONS LEARNED

THURSDAY, JUNE 5, 2025
Aula 7, 10:45 – 12:15

Organizer and Moderator: **Sanjay Gupta** (AirFuel Alliance, USA)

Speakers: Giampaolo Marino, Energous, USA
Christian Ferrier, E-Peas, Switzerland
Naoki Shinohara, Kyoto University, Japan
Sanjay Gupta, AirFuel Alliance, USA

HOW FAR, EFFICIENTLY AND PRACTICALLY, CAN WE WIRELESSLY CHARGE? AND WHAT??

THURSDAY, JUNE 5, 2025
Aula 7, 14:00 – 15:30

Organizer: **Dinesh Kithany** (WAWT, UK)

Speakers: (TBD)

MTT-S “Ask us Anything"

THURSDAY, JUNE 5, 2025
Aula 7, 16:00 – 17:30

Organizer: **Erin Kiley** (Massachusetts College of Liberal Arts, MA);
Sulekha Chattopadhyay (California Environmental Protection Agency, CA)

Are you a student or early-career professional who could use advice from seasoned members of MTT in academia, industry, and government? Maybe you wonder what your next professional steps should be, or maybe you’re curious to hear about the paths you could take along your chosen career in microwaves? For example:

How would an internship influence my graduation timeline?

What should I choose as a career: academia, industry, government?

How do I approach a prospective employer?

Please attend the Ask us Anything event, where panelists will describe their professional experience and candidly answer *your* questions!

Panelists:

Dr. Sulekha Chattopadhyay is a Fulbright Specialist and a Senior Member of IEEE. She received her Ph.D. in Environmental Sciences from the University of California, Riverside. She works for the California Environmental Protection Agency, a leading agency in the US and the world in developing science and data-based environmental policies. The major focus of her work is on electrifying the transportation sector to reduce air pollution through the development of technologically sound, fiscally viable policies that continue to grow the economy. With a portfolio of nearly a billion US dollars she oversaw the evaluation of electric vehicle charging infrastructure projects. Currently, she is facilitating the transformation of California's public transit fleet to zero-emission by 2040. Previously, she has been the lead staff for the aviation technology assessment, and directed the development of California's first particulate matter emissions inventory forming the basis for several regulatory, compliance and enforcement actions. Throughout her career she has played a pivotal role in bridging the gap between technological innovation and policy formulation for a cleaner, greener future. When she is not working as an engineer, she spends her time passionately and tirelessly translating complex scientific information for public consumption, mentoring students, especially young girls around the world to identify and reach their full potential. At IEEE, Sulekha actively contributes to the IEEE's Online Forum on Climate Change, IEEE-SIGHT, IEEE iVillage, and serves as chapter chair for EMBS, and vice chair for APS chapter, including Technical Committee member for PELS.

Dr. Erin Kiley is an Associate Professor with the Department of Mathematics at the Massachusetts College of Liberal Arts in the United States. Among others, she received Fulbright, Chateaubriand, and National Science Foundation fellowships for her work in multiphysics modelling of high-power microwave heating applications, including sintering. She has authored or co-authored 22 conference papers, 14 international journal publications, and a U.S. patent, but at a liberal arts institution, her primary work focus is now teaching and pedagogy. For eight years, she collaborated with John Bandler to organize and mentor the Three-Minute Thesis Competitions at the International Microwave Symposium, and continues to do so at the International Microwave Symposium and at other MTT-S conferences. She also serves as the MTT-S Region-1 Coordinator, and as a representative on the MTT-S Student Development Subcommittee.

Space Solar Power

FRIDAY, JUNE 6, 2025
Aula 7, 14:00 – 15:30

Invited talk

Space Solar Power: Closer Than You Think

Greg Durgin (Georgia Tech, USA)

PANEL - Space Solar Power EU INNOVATION COUNCIL

Organizers: **Erika Vandelle** (Thales Research & Technology, France)
Simon Hemour (University of Bordeaux, France)

"Towards a bio-mimetic sunlight pumped laser based on photosynthetic antenna complexes", *Universita Degli Studi Di Firenze, Istituto Nazionale Di Ricerca Metrologica, Università di Parma, Consiglio Nazionale Delle Ricerche, Insitute of Organic Chemistry – Polish Academy of Sciences, Karlsruher Institut Fuer Technologie, Technische Universitaet Muenchen, Max-Planck-Gesellschaft Zur Fordering Der Wissenschaften EV*

" Rectenna in millimeter-wave frequency range for high-power energy reception"
Thales Research & Technology, Thales Alenia Space, Université de Bordeaux, Institut Polytechnique de Bordeaux, Stichting IMEC Nederland, Universita Degli Studi di Perugia, Luna Geber Engineering SRL

*"*SiC-based High-Efficiency High-Power Optical Transmission Systems for Spacecrafts"
Universidad de Santiago de Compostela, Universidad de Jaen, Danmarks tekniske universitet, Friedrich-Alexander-Universitaet Erlangen-Nuernberg, Moverim SRL, Alminica AB