Engineering and Physical Sciences Research Council

APRIL

AI Hub for Productive Research & Innovation in Electronics

Everything you need to know about the APRIL AI Hub

The APRIL AI Hub was launched on 1st February 2024; you can watch our Online Launch session via our QR code. We are one of nine UKRI EPSRC funded AI Hubs across the UK and our research and developments are focused on AI for the electronics supply chain. This booklet aims to fill you in on everything you need to know about our Hub.

Foreword

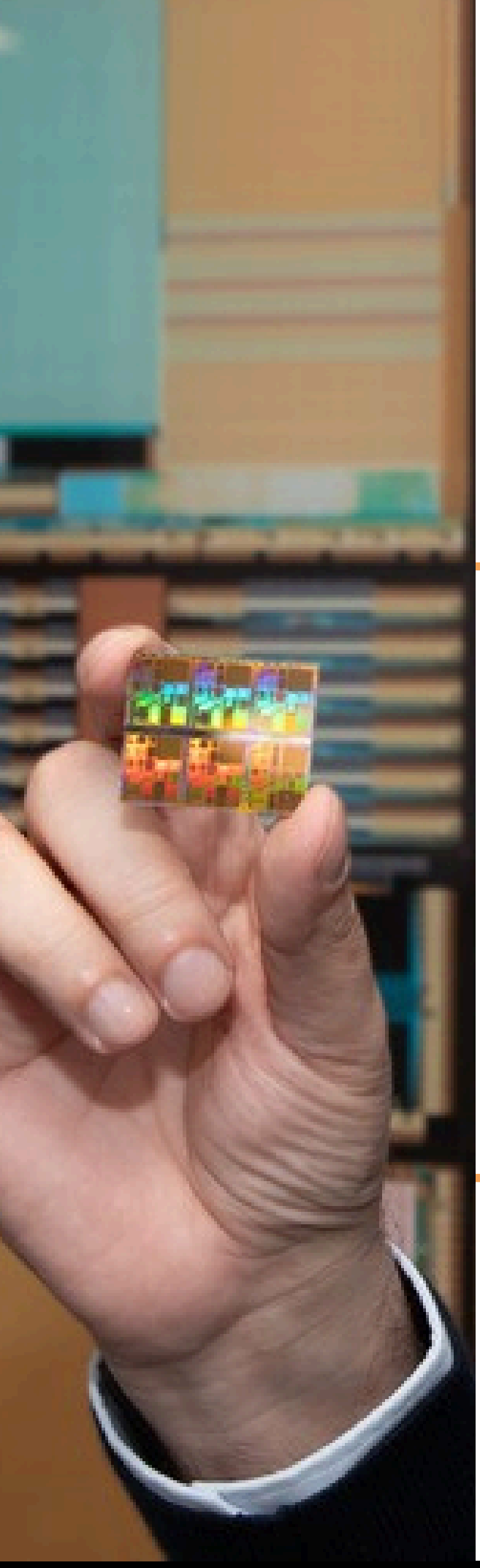
Prof. Themis Prodromakis
Hub Director

Artificial Intelligence (AI) is transforming the very foundations of science and engineering, from the way we discover new materials to how we design and manufacture emerging technologies. The UK stands at a critical moment in this transformation, with the opportunity to lead globally in developing responsible, and trustworthy AI capabilities for the critical sector of electronics.

At APRIL, our mission is to accelerate this shift. We are creating the tools, methods and frameworks that allow engineers to embed AI into real world systems, bridging fundamental research with industrial applications. From novel semiconductors and advanced materials to sustainable manufacturing, our work enables faster innovation, greater efficiency and reduced environmental impact across the whole electronics supply chain.

What makes APRIL unique is our collaborative approach. By connecting leading academic centres with industry partners and national facilities, we ensure that advances in AI are both cutting edge and commercially meaningful. We are also deeply committed to training the next generation of engineers and researchers who will shape this future, not just as users of AI but as its designers and custodians.

As we continue to expand our partnerships and capabilities, APRIL is helping define how AI can responsibly transform the UK's research and innovation landscape, delivering tangible benefits for society, industry and the economy.



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APRIL Aims

The AI for Productive Research and Innovation in eLectronics (APRIL) Hub is a UK Centre of Excellence that leverages AI to drive productivity, innovation, and competitiveness in the semiconductors and electronics industries with cutting-edge AI.

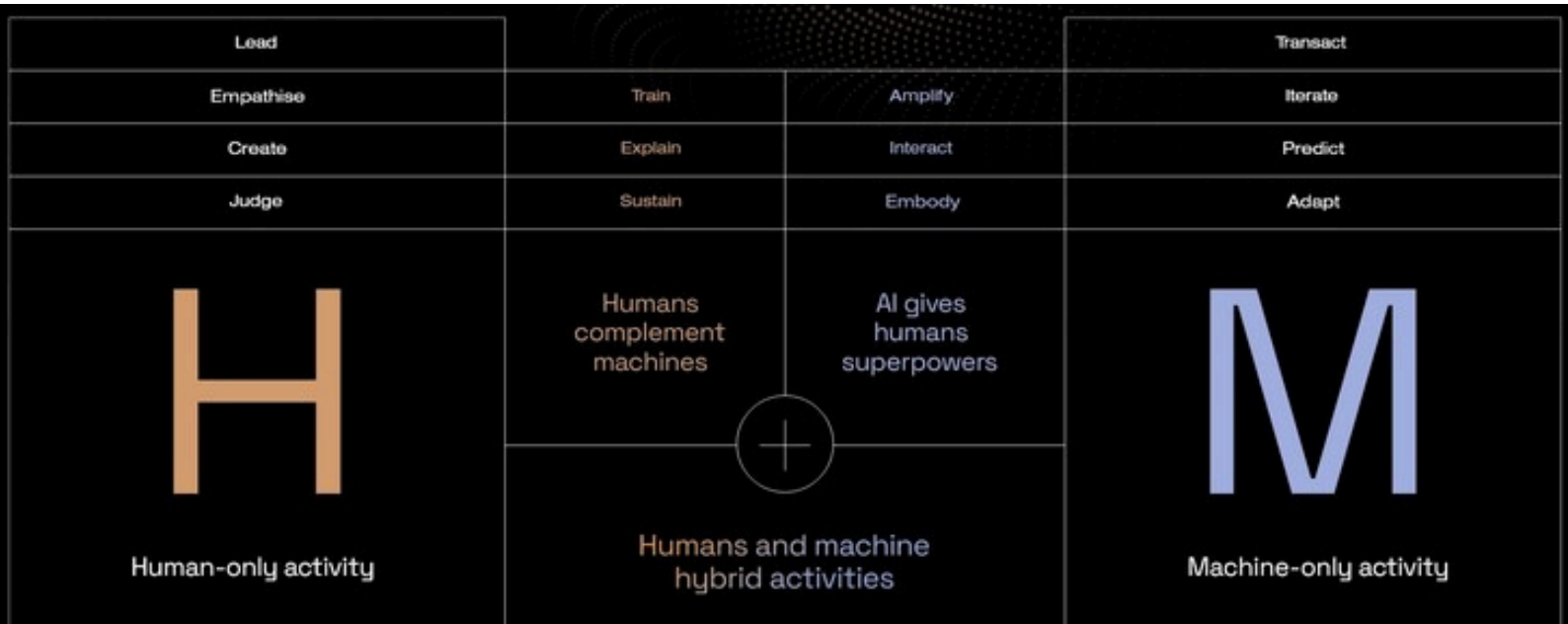
At APRIL, we embed advanced AI into every stage of the electronics supply chain, accelerating materials discovery, streamlining integrated circuit design, and enhancing verification and modelling.

Our mission is to connect world-class academic research with real industry needs for faster development of new materials and devices, reduced manufacturing costs and environmental impact, and smarter, more secure, and efficient electronic systems, empowering the next generation of engineers and researchers to lead in the digital era.

By fostering collaboration, we empower industry, academia, and policy makers to accelerate innovation and shape future technology.

Combining our creativity and judgement, with the efficiency and predictive ability of AI, the APRIL AI Hub aims to create ground-breaking technology to support engineers, industry professionals, and end users throughout the electronics supply chain. We proactively address key industry challenges by coordinating research and delivering targeted solutions, through our network. We also provide actionable insights and practical tools that drive tangible results for our partners.

Equality, Diversity and Inclusion are integral to everything we do. We promote flexible, transparent, and inclusive practices that enable every individual to reach their potential. Our research is founded on principles of trust and accountability, ensuring that advances in AI and electronics are developed ethically and deliver real benefits to society. We actively protect intellectual property and uphold research integrity, while embedding Responsible Research and Innovation through continuous engagement and training. Environmental sustainability is a cornerstone of our long-term strategy, with all activities aligned to national and institutional commitments for reducing environmental impact.



APRIL AI Hub for Productive Research & Innovation in Electronics

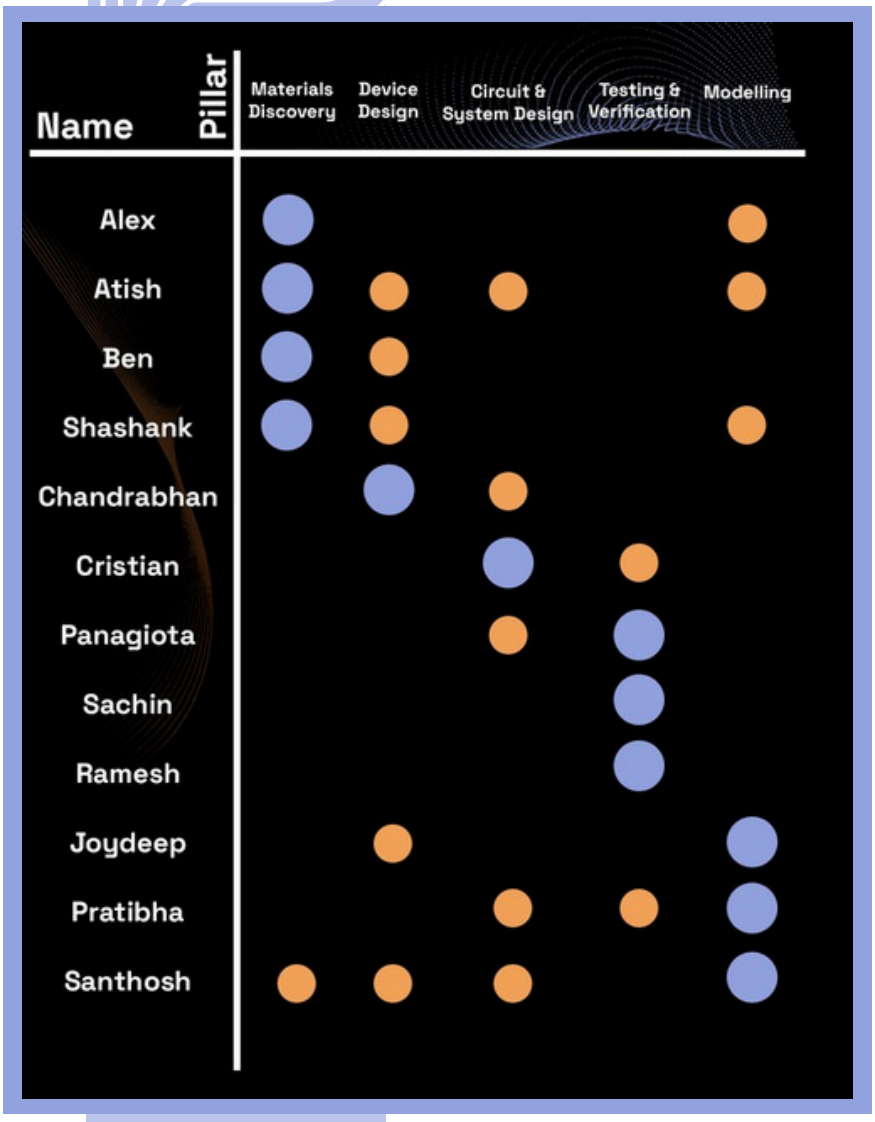
Hub Structure

Pillars

The APRIL AI Hub's research is formed into five pillars: Materials Discovery, Device Design, Circuit & System Design, Testing & Verification, and Modelling. Each pillar is led by two Pillar Leads, one specialising in the computer science or AI element of the pillar, and the other in the electrical engineering side. The Pillar Leads advise and support our team of researchers who each have a primary pillar, but many also work across other pillars.

Core Capabilities

The vertical pillars structure of APRIL is complemented by a horizontal structure of fundamental, cross-cutting capabilities that underpin the Hub's ability to deliver each pillar. Most of our Hub tasks draw upon these: Data Collection, AI Model Selection, AI Model Training, System Integration, and Data Security.



Cross-Pillar Collaboration

At APRIL AI Hub, cross-pillar collaboration is at the heart of our innovation model. Many of our researchers work across multiple pillars, creating opportunities to integrate diverse technologies, expertise, and capabilities. This collaborative approach fosters a cohesive development pathway for advanced solutions in the electronics supply chain. By initiating joint projects with shared goals and leveraging collaborative platforms for real-time data and model sharing, we enable seamless knowledge exchange and multidisciplinary problem-solving. Our regular brainstorming sessions further spark innovation, ensuring ideas flow freely between teams and disciplines.

Our Team

Prof. Themis Prodromakis
Hub Director

Themis holds the Regius Chair of Engineering at the University of Edinburgh and is Director of the Centre for Electronics Frontiers. His work focuses on developing metal-oxide Resistive Random Access Memory technologies and related applications. He holds a Royal Academy of Engineering Chair in Emerging Technologies and a Royal Society Industry Fellowship.

Prof. Dame Wendy Hall, DBE, FRS, FREng
Hub Co-Director

Wendy is Regius Professor of Computer Science, Associate Vice President (International Engagement) and Director of the Web Science Institute at the University of Southampton. She was Dean of the Faculty of Physical Science and Engineering from 2010 to 2014 and Head of the School of Electronics and Computer Science from 2002 to 2007.

Dr. Anastasia Eleftheriou
Hub Manager

Anastasia brings expertise across research, academia, entrepreneurship, and management in the field of Computer Science. She holds a PhD in Complex Systems Simulation from the University of Southampton and a BEng in Computing from Imperial College London. She is the founder of Technologos, leading European initiatives in digital education, AI, and social innovation.

Aisyah Noor Mohd
Hub Administrator

Aisyah has vast experience in project management, partnerships, public engagement and community outreach. She has held various roles from providing support and guidance to Centres for Doctoral Training programme to organising festivals and programmes for national museums and heritage institutions. Currently, she provides professional services support to ensure the smooth delivery of the Hub's objectives.

Dr. Caterina Netti
Business Development Executive

Following Caterina's PhD in Physics, she joined the University of Southampton, diving into research and entrepreneurship in optoelectronics and life sciences.

With over 20 years of experience, she has co-founded a company and utilised her scientific expertise to transition technologies from R&D to global markets, securing regulatory approvals and launching successful products.

Megan Hammell
Engagement Officer

Megan is responsible for event planning, website and social media management, and the Hub's overall engagement strategy. She is also a photographer, and creates a variety of engaging content and materials for the Hub, working to publicise and promote the valuable work and impact the Hub produces.

Megan has worked in communications and events planning in the charity and education sectors for over seven years. She has a BA (Joint Hons) Chinese and Film Studies from the University of Hull, and MA Film from Screen Academy Scotland.

Molly Smith
Outreach and Impact Officer

Molly is responsible for bringing together the Hub community through organising and delivering a variety of outreach events. Her mission is to engage APRIL with new generations of AI users and diverse sets of groups, specifically elderly and youth groups.

Molly has experience of working in outreach in Higher Education and organising and delivering events for widening participation groups since 2021. She holds a BA in History and International Politics from the University of Leeds and is currently working towards her MSc in Social Research at the University of Edinburgh. She is passionate about inclusion, widening participation and representation - values that influence her outreach work at APRIL.

Pillar One: Materials Discovery

Prof. Jacqueline Cole
University of Cambridge

Jacqueline is the Royal Academy of Engineering Professor of Materials Physics, University of Cambridge.

She combines AI with data science, computational methods and experimental research to afford a 'design-to-device' pipeline for data-driven materials discovery. Her research is highly interdisciplinary. Accordingly, she holds two PhDs.

Before moving to Cambridge, Jacqueline held a post-doctoral position in Physics at the University of Kent at Canterbury, UK. Prior to this, she undertook a PhD in Chemistry through an international studentship between the Institut Laue Langevin, Grenoble, France, and Durham University. Her university studies began at Durham University where she graduated with first class honours in Chemistry in 1994.

Prof. Subramanian Ramamoorthy
University of Edinburgh

Subramanian is Professor of Robot Learning and Autonomy in the School of Informatics at the University of Edinburgh, where he is the Director of the Centre for AI in Assistive Autonomy and the Generative AI Laboratory.

His research explores machine learning and its uses in robotics and autonomous systems. This includes physics informed machine learning and the problem of trustworthiness in AI. This work has attracted funding from a variety of sources including UKRI, EU, DARPA, DSTL and the Royal Academy of Engineering, and been recognised with best paper awards at international conferences including ICRA, IROS, CoRL, ICDL and EACL.

Pillar Two: Device Design

Prof. Bipin Rajendran
King's College London

Bipin is Professor of Intelligent Computing Systems in the Department of Engineering, King's College London, where he directs the King's Laboratory for Intelligent Computing. He also co-leads the Centre for Intelligent Information Processing Systems (CIIPS).

He received a B. Tech degree from I.I.T. Kharagpur in 2000, and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University in 2003 and 2006, respectively. He was a Master Inventor and Research Staff Member at IBM T. J. Watson Research Center in New York from 2006 - 2012 and has held faculty positions in India and the US.

Prof. Merlyne De Souza
University of Sheffield

Merlyne has been Chair in Microelectronics at the University of Sheffield since 2007. Her research spans multidisciplinary areas, focusing on energy-efficient, CMOS-compatible devices for edge intelligence and brain–machine interfacing. She previously led the €4.9M ENIAC JU project Partitioning and Modelling Systems in Package (PARSIMO) (2011–2014) and was a core member of Energy to Smart Grid (E2SG) (2012–2015), which received the EU-ECSEL Innovation Award in 2015. She was the first person to win an Student Research Competition award internationally in open competition with US universities in 2003.

Merlyne currently serves as a Distinguished Lecturer and Vice President for Emerging Technologies of the IEEE Electron Devices Society (EDS). She is a member of the Nanoelec Scientific Council (France) since 2017, and a Mercator Fellow of the DFG Collaborative Research Center Next Generation Electronics with Active Devices in Three Dimensions (since 2025).

Merlyne earned her PhD from the University of Cambridge in 1994. Prior to joining the University of Sheffield, she became Professor of Electronics and Materials at De Montfort University in 2003.

Pillar Three: Circuits & System Design

Prof. Christos Bouganis
Imperial College London

Christos is Professor of Intelligent Digital Systems in the Department of Electrical and Electronic Engineering, Imperial College London.

Christos is an expert in reconfigurable computing and design automation mainly targeting digital signal processing algorithms. He leads the Intelligent Digital Systems Lab (iDSL) group at Imperial College, with a focus on the theory and practice of reconfigurable computing and design automation, concentrating on the domains of Machine Learning, Computer Vision, and Robotics.

Prof. Michael O'Boyle
University of Edinburgh

Michael is Professor of Computing and Director of the Institute for Computing Systems Architecture at the University of Edinburgh's School of Informatics. Michael's research interests include adaptive compilation, machine learning based optimisation, auto-parallelising compilers and heterogeneous GPGPU multi-core platforms. He is project leader of the MILEPOST GCC project and founding member of the European Network of Excellence on High Performance and Embedded Architecture and Compilation.

An expert on the automatic exploitation of heterogeneous hardware using neural embeddings, program synthesis and neural machine translation, Michael holds an EPSRC Established Career Fellowship.

Pillar Four: Testing & Verification

Prof. Máire O'Neill
Queen's University of Belfast

Máire is Regius Professor in Electronics and Computer Engineering, and Director of the Centre for Secure Information Technologies (CSIT) at Queens University Belfast. She is also Director of the UK Research Institute in Secure Hardware and Embedded Systems (RISE) and serves on the leadership team of the Responsible AI UK programme. She is internationally recognised for her research in hardware security and applied cryptography. She has received numerous awards which include a 2024 Royal Irish Academy Gold Medal, a Blavatnik Engineering and Physical Sciences medal, 2019, and a Royal Academy of Engineering Silver Medal, 2014. She is a Fellow of the Royal Academy of Engineering, a member of the Royal Irish Academy and Fellow of the Irish Academy of Engineering.

Prof. Kerstin Eder
University of Bristol

An expert in design verification, Kerstin is the Head of the Trustworthy Systems Laboratory at the University of Bristol. She received an RAEng "Excellence in Engineering" Prize.

Kerstin has a strong background in computational logic, especially formal verification, declarative programming, abstract machines, compilation techniques and meta programming.

Kerstin's research activities are focused on specification, verification and analysis techniques which allow designers to define a design and to verify/explore its behaviour in terms of functional correctness, performance, power consumption and energy efficiency. Her work includes both formal methods and state-of-the-art simulation/test-based approaches.

Pillar Five: Modelling

Prof. Vihar Georgiev
University of Glasgow

Vihar is Professor of Nanoelectronics and leader of the DeepNano Group at the University of Glasgow. He has more than 15 years of experience in developing numerical solvers and machine learning methods that are used for modelling and simulations of various nanoscale devices for advanced optoelectronics, biosensors and quantum applications.

Vihar holds an EPSRC UKRI Innovation Fellowship and serves as a Visiting Professor at TU Vienna. Since his appointment as a Lecturer in 2015, he has secured funding of around £2M as a PI and around £5M as a co-PI. Apart from his academic achievements Vihar was a Quantum Simulation and Business Development Adviser at SemiWise and VP Business Development and Quantum technology at Advanced Microelectronics Associates. Currently he is a Chair of the Industry Advisory Board and deputy head of the Electronic and Nanoscale Division at the University of Glasgow.

Prof. Rishad Shafik
Newcastle University

Rishad is Personal Chair in Microelectronic Systems Design within the Microsystems Research Group and serves as the Director of the Microsystems AI Lab at Newcastle University. He is also a Co-founder of Literal Labs.

Rishad's research emphasises hardware/software co-design of machine learning systems, with a particular focus on ultra-low-power design using Tsetlin Machines. His research contributed to circa £42m research grants as PI/Co-I funded by EPSRC, Research Council of Norway (RCN), European Research Council (ERC) and Industries.

Rishad co-edited the reference book: "Energy-efficient Fault-Tolerant Systems" published by Springer USA, and has authored/co-authored over 200 research articles. He is a Member of the IET, a Senior Member of IEEE, a Steering Member of the EPSRC-funded eFutures, and a regular contributor to, and organiser of, major conferences. He received his PhD and MSc (with distinction) degrees from the University of Southampton in 2010 and 2005, respectively.

Researchers

Dr. Cristian Sestito
Research Fellow

Cristian's research sits at the intersection of AI for circuits and systems design automation and circuits and systems design for AI. On the one hand, he builds Large Language Model (LLM)-powered tools to accelerate commercial Electronic Design Automation (EDA) workflows. On the other hand, he designs energy-efficient AI accelerators—especially systolic arrays that cut data-movement energy via local reuse.

Dr. Ben Rowlinson
Research Associate

Ben's research focuses on exploring new, non-silicon-based materials for electronic devices and circuits. Across the periodic table, there are millions of combinations of elements that could offer improved characteristics, lower environmental impact or properties yet to be discovered. Ben's dual experimental and computational approach leverages machine learning techniques on real, measured data.

Dr. Santhosh Sivasubramani
Research Fellow

Santhosh's research focuses on developing advanced AI tools to model system behaviour, device characteristics, and reliability for next-generation computing hardware. He is working on creating digital twins to predict device performance, optimise their durability, and reduce computational costs. Using computational facilities, Santhosh aims to bridge the gap between device-level modelling and real-world performance, ensuring reliable and sustainable technology for future applications.

Dr. Atish Dixit
Research Fellow

Atish's research combines machine learning, applied mathematics, and computational simulations to explore innovative ways of designing and optimising engineering designs. He has focused on building generative AI to solve engineering problems in the areas of petroleum engineering and multi-agent robotic systems. Atish aims to develop AI-driven frameworks that improve efficiency and uncover new possibilities for material innovation.

Researchers

Dr. Pratibha Verma
Research Associate

Pratibha works at the intersection of A and hardware design, focusing on AI-driven automation for analogue and mixed-signal circuits. Her work aims to integrate intelligent design methodologies into traditional electronic design workflows, bridging AI and hardware design to shape the next generation of intelligent electronic systems.

Dr. Chandrabhan Kushwah
Research Associate

Chandrabhan is researching AI Electron device design to identify key features of components or devices by analysing large datasets from simulations, experiments, or historical data. Machine learning models can extract patterns that characterise the devices, such as performance metrics, material properties, and design features. These characteristics can then be compared across different devices to identify similarities and differences, which helps in decision-making, optimisation, and benchmarking.

Dr. Alexandros Keros
Research Fellow

Alexandros works on exploring the interplay of structure and function by employing topology, geometry, and machine learning methods to discover novel materials for electron devices. Achieving this entails understanding complex dynamical systems, efficiently producing accurate physical models and simulations, and concisely modelling the resulting structures.

Dr. Joydeep Ghosh
Research Fellow

Joydeep's research focuses on nano-scaled CMOS device (e.g.FinFET, GAA-FET, nanosheet) simulations, different modelling techniques in beyond CMOS technology (e.g., Spintronics), electronic transport simulations, and HEMT device simulations for RF applications. He is also interested in applications of different machine learning methodologies in electronic devices and systems to enhance their performance.

Researchers

Dr. Shashank Mishra
Research Associate

Shashank's research focuses on leveraging AI models along with other physics-based models to predict materials and their interfacial properties for optimal device performance. His current interest lies in exploring AI tools to predict performance of energy harvesters such as triboelectric nanogenerators. Shashank's work aims to explore the materials space and develop inverse design approaches to accelerate the device design process.

Dr. Panagiota Kontou
Research Associate

Panagiota' s research centres on circuit design and verification automation using commercial Electronic Design Automation (EDA) tools, with a particular emphasis on radio frequency (RF) design. Currently, she explores circuit representation in a netlist format and investigates how AI can repair and optimise these designs. With prior experience in developing real-world healthcare solutions and hands-on expertise in circuit design and testing, Panagiota is driven to create efficient and intelligent automation tools.

Dr. Sachin Raj Chowdary
Research Associate

Sachin holds a Master's in Electrical Engineering from San Jose State University, with expertise in SoC design, UVM-based verification, and digital systems. Prior to this, he earned his Bachelor of Technology in Electronics and Communication Engineering from Jawaharlal Nehru Technological University, where he built a strong foundation in semiconductor devices, digital design, and embedded systems.

Dr. Ramesh Krishnamurthy
Research Associate

Ramesh studies how AI can enhance verification workflows by modelling system behaviour, guiding test selection, and detecting corner-case conditions early. His broader goal is to create adaptive, data-guided verification pipelines that reduce engineering effort and enhance trust in next-generation electronic designs. By blending learning techniques with principled analysis, he develops methods that accelerate verification for digital, RF, and novel device technologies, with the goal of improving test quality and reducing manual effort.

Research

Pillar One

Materials discovery is key for the development of next-generation electron devices. We pioneer tools to advance material science for electronics engineering. From Electronic Materials Operating System (EMOS), the one-stop-platform that curates material databases, generators, and predictors for crafting custom material discovery pipelines, to topological methods for characterising atomic structure and material behaviour, we develop novel data-driven methods to investigate material properties and structures. Our cutting-edge AI models, from the gradient-boosted electronic property predictors to the property conditioned synthesis-aware generative solutions, provide efficient ways to predict future-defining materials.

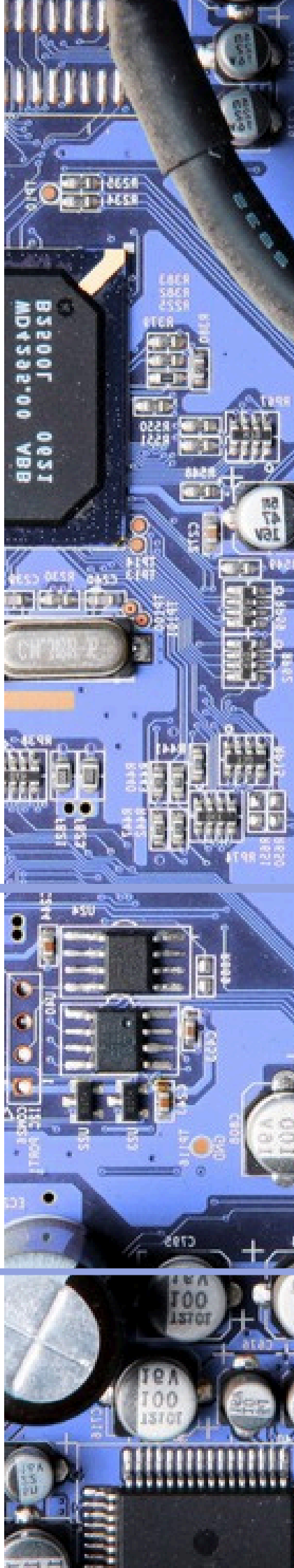
Pillar Two

Device Design aims to build AI-driven systems that design and execute experiments to discover optimal device recipes and manufacturing parameters for high-yield, high-performance electron devices. We have been developing a modular, cloud-ready pipeline that automatically curates experimental device data from the literature—combining open-source tools, OCR, rule-based and LLM-assisted parsing, unit normalisation, semantic filtering, and a custom scholarly search engine—to scale trustworthy datasets for benchmarking and design. In parallel, we are exploring ML approaches that learn latent features from literature-extracted simulation and experimental data to predict key metrics and enable inverse design, reducing trial-and-error. Ongoing efforts span TCAD calibration, physics-informed optimal control, and LLM-based verification. Together, these developments advance data-driven decision-making, improve reproducibility, and accelerate automated testing and yield assessment—bringing more efficient, reliable, and sustainable devices to market.

Research

Pillar Three

The AI for Circuits and System Design Automation Pillar advances intelligent methods to streamline the design of complex electronic circuits and systems. A major ongoing project is the development of a toolchain powered by large language models (LLMs) to support analogue, digital, and radio frequency (RF) circuit design. This toolchain integrates with commercial electronic design automation (EDA) platforms, facilitating design from natural language specifications so users can express their intent conversationally. By incorporating feedback from power, performance, and area (PPA) analysis throughout the workflow, this approach helps designers to make informed decisions, optimise their work efficiently, and meet target specifications. Leveraging state-of-the-art AI, the project aims to accelerate the design process, reduce errors, and expand the capabilities of automated circuit design and optimisation.



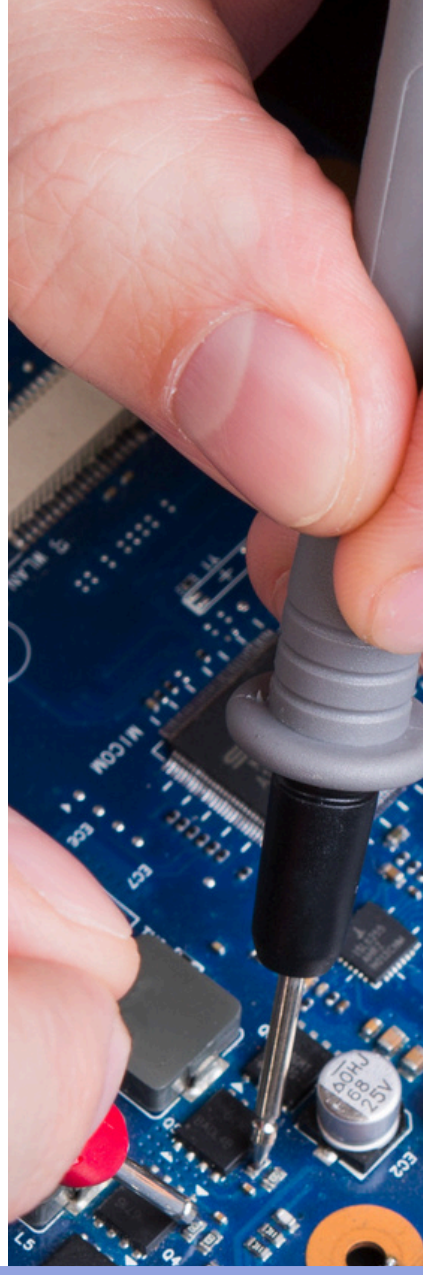
Research

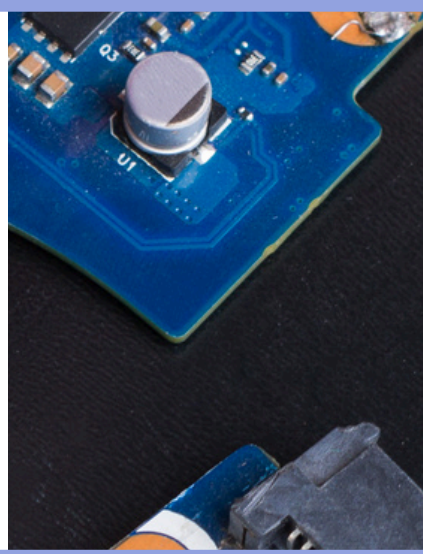
Pillar Four

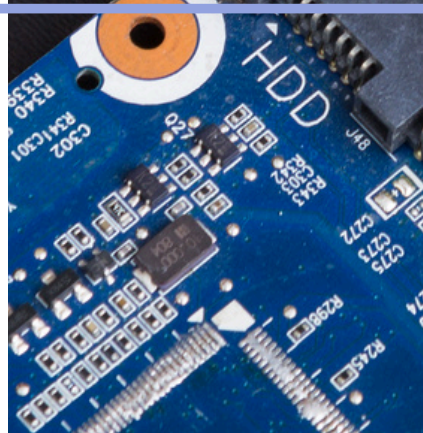
Pillar Four focuses on Electronics Testing and Verification Automation by embedding AI principles to streamline testing processes and improve prediction accuracy. The goal is to reduce verification time and increase efficiency by enhancing scenario coverage in certification tests across diverse devices and systems, extending even to automatically deciphering physical mechanisms in emerging beyond-CMOS devices.

One ongoing project is a workflow that automates circuit design and testing using commercial EDA tools, enabling faster Radio Frequency (RF) design. By leveraging a Large Language Model (LLM), users can describe the circuit they want, which is then automatically implemented and tested in commercial EDA tools, thus making the process both faster and accessible, even for those unfamiliar with the tool. Building on this, we are also developing AI-driven verification methodologies for digital designs (SoCs/ASICs). This includes using machine learning to guide test generation, accelerate coverage closure, and reduce redundant simulation cycles within traditional-based testbenches. Our approach treats verification not only as a pass/fail process but as a dynamic loop where AI learns from coverage gaps and failure patterns to suggest the next best tests.

By combining these strands, RF design automation, functional verification acceleration, and beyond-CMOS testing, we aim to create a holistic AI-powered verification ecosystem. This ecosystem can adapt across technologies, reduce engineering effort, and shorten time-to-market for next-generation systems.



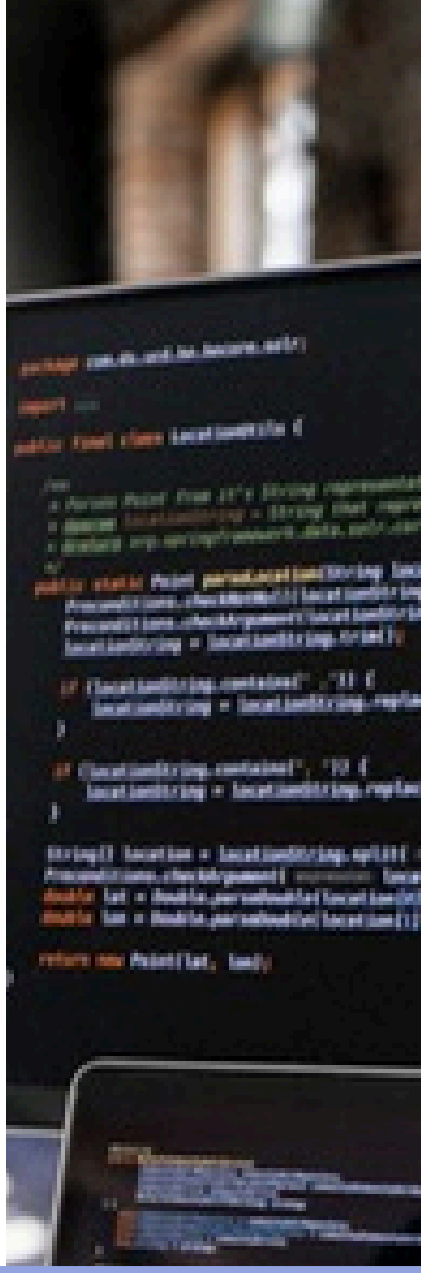


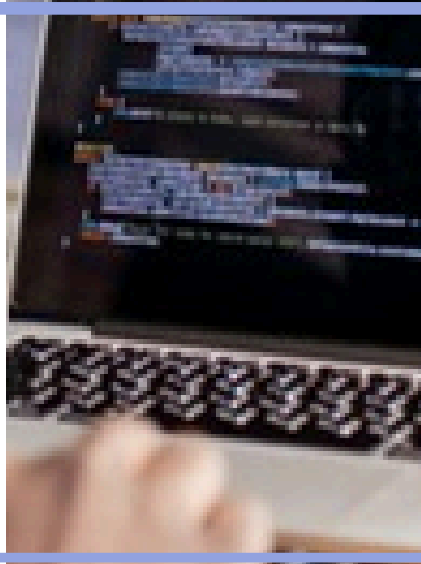


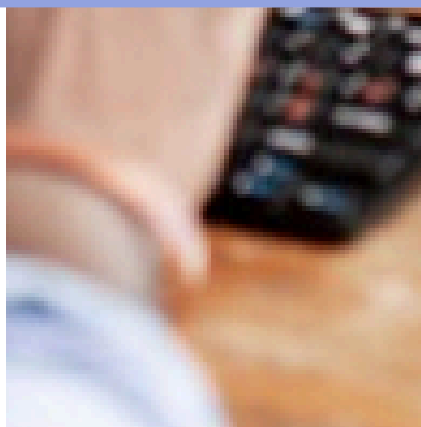
Research

Pillar Five

AI is revolutionising industries worldwide and delivering unprecedented productivity gains across diverse sectors, from healthcare to manufacturing. Indeed, several machine learning (ML) methods have also significantly advanced semiconductor industry, particularly in last few years, by providing sophisticated methods for analysing the performances of the emerging devices. In these emerging devices, CMOS is the current dominant technology for microprocessors, and beyond CMOS refers to future technologies that aim to overcome CMOS's limitations in scaling, power, and speed. Generally, the tremendous increase of computational power of integrated circuits is supported by the continuing miniaturisation of semiconductor devices' feature size. In this direction, our investigation is ongoing with the ML-guided design and optimisation of ultra-scaled transistors. In parallel, we are also scrutinising how AI can enhance the understanding and optimisation of skyrmion-based systems. These Skyrmions are topologically protected spin configurations, typically observed at the nanoscale in magnetic material.







Outreach

APRIL AI Hub for Productive Research & Innovation in Electronics

APRIL and the Tower of Techport

The APRIL AI Hub worked alongside children's author and illustrator, Ramya Julian, to develop a book for primary school children which aims to introduce students to the concepts of AI, electronics and innovation. The adoption of AI is becoming an increasingly important topic, especially its use in education. By making these concepts accessible, fun and engaging, we hope to inspire and educate a new generation of young people on how AI can be used to help us. We have donated copies of this book to over 400 schools across the UK, some have even been sent abroad to India and Greece.

APRIL, the brilliant AI robot, lives in Techport, a city powered by incredible technology and vibrant ideas. As New Year's Eve approaches, the Microchip Guardians ask APRIL to help them build a dazzling tower that will light up Techport for the New Year! Soon, APRIL and the Microchip Guardians create a marvel unlike anything Techport has ever seen. But when the city's power source fails, it's up to APRIL's imagination – and a little teamwork – to save the day, and the New Year!

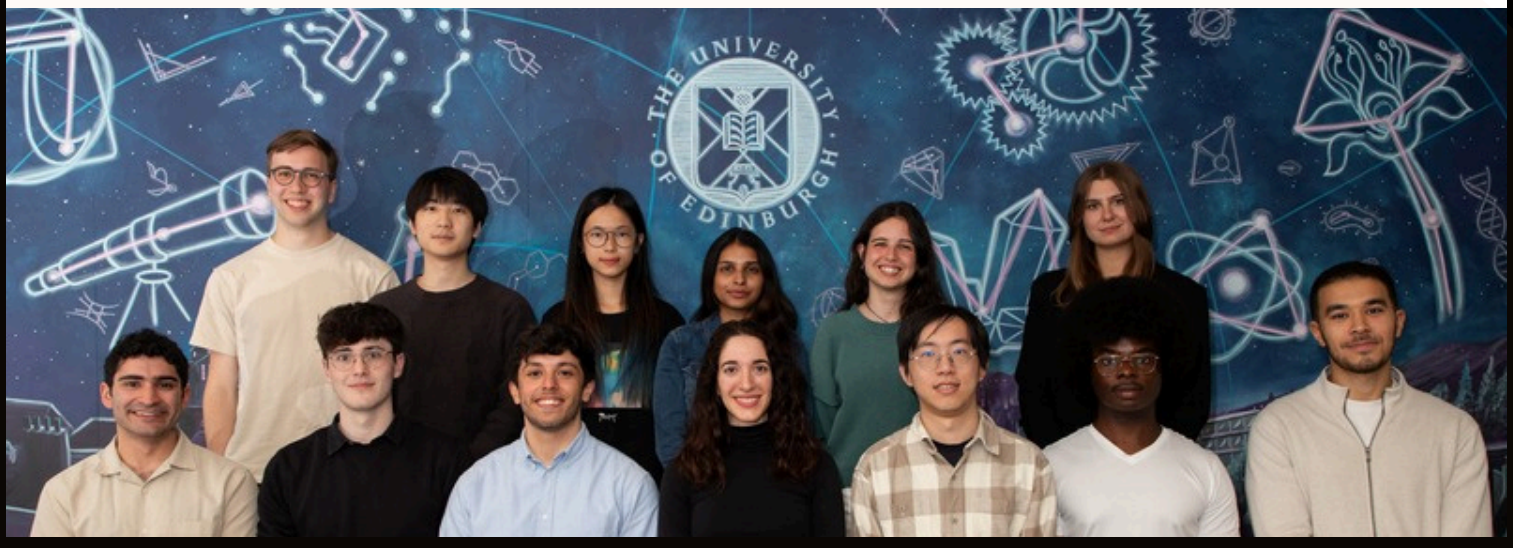
Google DeepMind Research Ready Internship Scheme 2025

In June 2025, the APRIL AI Hub launched a transformative eight-week internship programme in partnership with the Google DeepMind Research Ready scheme. Designed to support students from underrepresented groups in AI and related fields, the programme aimed to provide meaningful research experience, foster inclusive academic engagement, and nurture the next generation of researchers and innovators.

Twelve talented undergraduate students joined the programme, representing a wide range of academic disciplines—engineering, computer science, chemistry, and physics— coming from leading institutions across the UK. These included the University of Stirling, University of Edinburgh, University of Glasgow, University of Leeds, University of Manchester, University College London (UCL), and the University of Southampton.

The internship was designed not just as a technical placement, but as a holistic experience. Alongside their research, interns participated in structured outreach activities, ranging from workshops with schoolchildren to digital literacy sessions with older adults, bringing AI discussions to a wide audience and improving their science communication skills. Weekly social events and team-building activities, including Friday fun sessions and collaborative challenges, helped foster a strong cohort identity and a supportive peer network.

This immersive environment provided interns with early exposure to academic research culture, encouraged interdisciplinary thinking, and helped build confidence in their future career paths; whether in postgraduate study, applied research, or industry. It also reinforced APRIL's commitment to widening participation in AI and semiconductors, and strengthening the UK's future talent pipeline in emerging technology fields.



APRIL AI Hub for Productive Research & Innovation in Electronics

ACE IT Scotland

ACE IT Helping people over 50 access the digital world

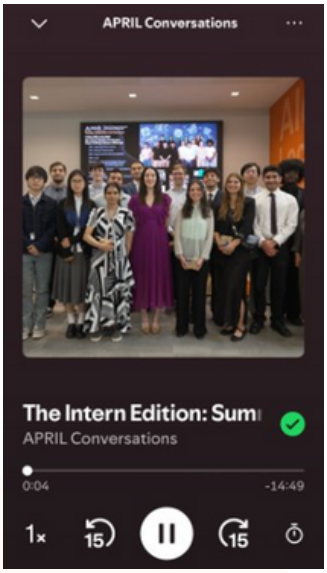
APRIL partnered with local Edinburgh charity, ACE IT, to deliver an intergenerational learning experience on AI through a series of workshops. This initiative combined ACE IT's mission to promote digital inclusion among learners aged over 50, and APRIL's outreach commitment in supporting new generations of AI users.

The session welcomed 22 learners from ACE IT who were paired up with 22 researchers from APRIL, including our Google DeepMind Research Ready interns. Across the two sessions, learners engaged in hands-on activities and discussions exploring how AI can be used to tackle loneliness, enhance accessibility, and support daily living. Learners were also paired up with an intern or Early Career Researcher to receive a one-to-one personalised mentoring session on how AI tools might benefit their individual needs. The programme aimed to demystify AI to older learners and highlight its practical, human-centred applications.

APRIL Conversations

APRIL Conversations is our APRIL AI Hub podcast; inviting insightful guests to explore and discuss topics around AI and its impact on the world.

Listen Here on Spotify



In our first episode, we were joined by our amazing summer Google DeepMind and Sabanci University interns on their final day with us. In our second episode, we were joined by APRIL researchers, Dr. Alexandros Keros and Dr. Atish Dixit, for a thought-provoking conversation on one of today's most pressing debates: Is AI replacing us?

Outreach and Engagement Collaborators:

Edinburgh Science · IntoUniversity · Lindemann Trust · Ramya Julian Author-Illustrator · ACE IT Helping people over 50 access the digital world · UK Electronics Skills Foundation · Scouts

Interested in collaborating with us?
Get in touch at APRIL@ed.ac.uk

APRIL AI Hub for Productive Research & Innovation in Electronics

Engagement

APRIL AI Hub is a partnership between the University of Edinburgh, University of Glasgow, Newcastle University, University of Sheffield, Queen's University Belfast, University of Bristol, University of Cambridge, King's College London, and Imperial College London. Working closely with our Pillar Leads, the Hub fosters meaningful connections and drives impactful collaborations across these leading institutions.

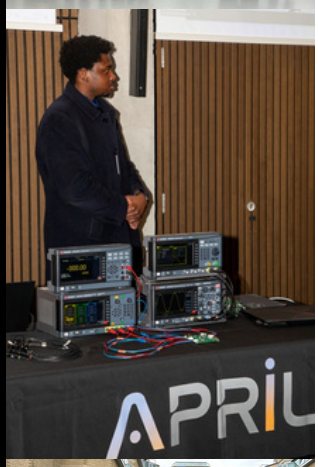
Beyond its founding partners, the APRIL AI Hub builds a dynamic ecosystem where academic institutions collaborate to amplify their collective strength in AI innovation. This network enables cross-institutional research, shared expertise, and joint access to cutting-edge infrastructure, datasets, and computational resources—empowering researchers to address complex challenges that no single institution can tackle alone.

Knowledge exchange is at the heart of our mission. Through inter-university workshops and co-authored publications the Hub nurtures a vibrant, collaborative research community that accelerates discovery and impact.

Also central to APRIL's mission is engagement with industry. Through world-class research and technical expertise, APRIL Researchers collaborate with industry partners to support the semiconductor and electronics community in exploring new ways to use AI for new material discovery, smarter chip design, system optimisation, and sustainability.

Beyond innovation, the Hub also plays a vital role in developing skills and capabilities across the ecosystem. Through training programmes, workshops, and joint projects, APRIL is helping to equip the current and next generation of talent with the expertise needed to apply AI responsibly and effectively in semiconductor and electronics applications.

If you are interested in collaborating with us, please reach out at APRIL@ed.ac.uk.



Seed Funding

The APRIL AI Hub is committed to enable ground-breaking AI research and innovation through a diverse range of funding opportunities. Academic partners can access seed funding designed to support innovative, early-stage projects that advance responsible AI in the electronics sector — bridging the gap between academia and industry through meaningful collaboration.

Other funding sources are available to support ambitious AI research and innovation. Flexible funding will be used to support unrepresented members or new institutions, whereas sandpits will deliver larger scale projects, each focusing on specific industry sponsored challenges.

- **Materials Discovery**
- **Device Design**
- **Circuit & System Design**
- **Testing & Verification**
- **Modelling**

University of St Andrews
University of Glasgow
Heriot-Watt University
Univerisity of Edinburgh
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KING'S College LONDON

UKRI Engineering and Physical Sciences Research Council

The Hg Foundation

Contact Us

We at the APRIL AI Hub are always keen to collaborate and connect dots. If you are interested in joining our Network, working with us on a project, or want to coordinate a joint event, please get in touch!

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https://www.april.ac.uk/

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