



ASTRI

LEADING INNOVATION • BREAKING BOUNDARIES

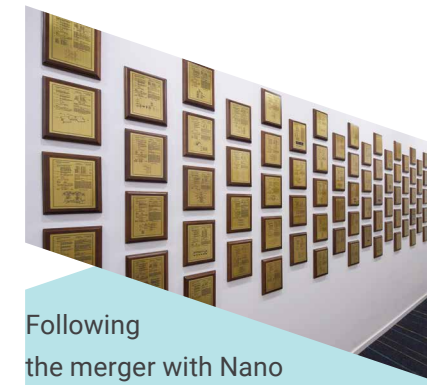
引领创新 突破界限

ASTRI

Hong Kong Applied Science and
Technology Research Institute
香港應用科技研究院

Hong Kong Applied Science and Technology Research Institute (ASTRI) is founded in 2000 by the Government of the Hong Kong Special Administrative Region. As Hong Kong's largest government-funded research and development centre, ASTRI is a key force and super connector driving innovation and technology advancement in Hong Kong, the Greater Bay Area, and the global innovation ecosystem.

香港应用科技研究院（应科院）于2000年由香港特别行政区政府成立。作为香港最大的政府资助研发中心，应科院不仅是推动科技进步的重要力量，更担当促进香港、大湾区以至全球创新生态圈发展的「超级联系人」角色。



Following the merger with Nano and Advanced Materials Institute (NAMI), ASTRI's cumulative patent portfolio has grown to over 1,500, with more than 2,200 technologies successfully transferred to industry.

与纳米及先进材料研究院(NAMI)合并后，应科院取得的专利累计增至超过1,500项，并已成功向业界转移逾2,200项技术。

Bringing together hundreds of R&D professionals with Doctoral or Master's Degrees
汇聚数百名具博士或硕士学位的科研专才



Technology Transfer 技术转移

ASTRI boasts an extensive collection of market-ready and commercially viable technologies. ASTRI has been transferring technology to industry through R&D contracts, licensing, and other collaborative models.

应科院致力为客户开创新科技，并把技术商品化落地应用，取得丰硕成果。我们透过研发合约、授权及其他合作模式，把技术转移给业界。



Our **Vision** 我们的愿景

Enhance Hong Kong's competitiveness in the technology-based industries through applied research.
透过应用科技研究，协助发展以科技为基础的产业，借此提升香港的竞争力。

Our **Mission** 我们的使命

- Conduct relevant and high-quality research and development for transfer to industry;
进行相关及高质素的科技研发工作，并把科研成果转移给不同产业应用；
- Encourage collaboration among government, industry, academia and research;
鼓励「政产学研」合作；
- Foster wider adoption of innovation and technology (I&T);
推动更广泛应用创新科技；
- Nurture Hong Kong's I&T talents; and
培育香港创科人才；及
- Promote Hong Kong's I&T advantages.
推广香港创科优势。

What We Offer 服务范围

One of ASTRI's objectives is to empower industries to capitalise on the burgeoning technology market and boost their competitive edge. We are committed to sharing our expertise and R&D achievements with clients and partners, for the benefit of the entire tech industry.

应科院的主要目标之一是协助产业在蓬勃的科技市场中抓紧机遇，增强产业的竞争优势。我们乐意与客户和合作伙伴分享我们的专业技术以及研发成果，让整个科技产业界受惠。

7 Core Areas 核心科研

ASTRI's R&D efforts are concentrated in seven key areas:

- Smart City
- FinTech
- Digital Health and Life Sciences
- New Industrialisation and Intelligent Manufacturing
- Application-Specific Integrated Circuits (ASIC) and Advanced Electronics
- New Energy and Energy Storage
- Green and ESG Technologies

应科院技术研发应用聚焦七大领域：

- 智慧城市
- 金融科技
- 数码健康及生命科学
- 新型工业化及智能制造
- 专用集成电路及先进电子
- 新能源与储能
- 绿色与永续发展科技

9 Technology Divisions 技术部门

ASTRI conducts high-quality R&D for technological applications designed to meet industry needs. Our core R&D competence across various areas are organised under nine technology divisions:

应科院研发适合应用于业界的高质素技术项目。我们的主要科技研发领域可归纳于九个技术部门：



Smart City

智慧城市

FinTech

金融科技

As Hong Kong advances towards becoming a leading smart city, ASTRI develops cutting-edge technologies that enhance urban infrastructure, improve operational efficiency and elevate quality of life for residents. Our innovations integrate next-generation communications, artificial intelligence, IoT sensing and advanced materials to create a more connected, efficient and livable urban environment.

随着香港迈向成为领先的智慧城市，应科院致力开发尖端技术，以提升城市基建、改善运营效率，并提升市民的生活质素。我们的创新技术融合了新一代通讯技术、人工智能、物联网感测及先进材料，有助打造一个更互联、高效及宜居的城市环境。

As Hong Kong strengthens its position as an international financial hub, ASTRI develops advanced FinTech solutions that enhance security, efficiency and customer experience across the financial services sector. Our innovations leverage artificial intelligence, federated learning and blockchain technology to help banks, insurers and financial service providers deliver faster, more reliable and secure services.

香港作为国际金融中心的地位日渐稳固，应科院致力开发先进的金融科技 (FinTech) 解决方案，提升金融服务行业的安全、效率及客户体验。我们的创新技术善用人工智能科技、联盟式学习及区块链技术，协助银行、保险公司及金融服务提供商提供更快速、更可靠且更安全的服务。

Digital Health and Life Sciences 数码健康与生命科学



New Industrialisation and Intelligent Manufacturing 新型工业化及智能制造



ASTRI develops innovative Digital Health and Life Sciences that enhance healthcare delivery, improve patient outcomes and support Hong Kong's ageing population. Our solutions integrate artificial intelligence, IoT sensing, advanced materials and life sciences to enable preventative health monitoring, precise medical diagnosis and personalised care across clinical and community settings.

应科院开发创新的数码健康及生命科学，有助提升医疗服务效率、改善患者治疗效果，以应对香港老龄化人口需求。我们的解决方案融合了人工智能、物联网感测、先进材料及生命科学，实现预防性健康监测、精准医学诊断，并在临床和社区环境中提供个性化照护。

ASTRI develops advanced technologies for New Industrialisation and Intelligent Manufacturing that enhance productivity, reliability and sustainability across production environments. Our solutions integrate artificial intelligence, robotics, next-generation connectivity and advanced materials to transform traditional manufacturing into intelligent, interconnected operations that meet the demands of Hong Kong's evolving industrial landscape.

应科院开发新型工业化及智能制造的先进技术，以提升智慧工厂的生产力、可靠性和可持续性。我们的解决方案融合了人工智能、机器人技术、新一代通讯技术及先进材料，将传统制造业转型为智能互联的运营模式，以满足香港不断演变的工业需求。

Application-Specific Integrated Circuits (ASIC) and Advanced Electronics 专用集成电路及先进电子

New Energy and Energy Storage 新能源与储能

As the Hong Kong Branch of the National Engineering Research Center for Application Specific Integrated Circuit System (CNERC), ASTRI drives innovation in microelectronics and integrated circuits, developing cutting-edge ASIC solutions and advanced electronics that serve diverse industry sectors. Our expertise spans intelligent manufacturing, automotive technologies, artificial intelligence and next-generation electronics packaging.

作为国家专用集成电路系统工程研究中心香港分中心，应科院在微电子及集成电路领域推动创新，开发尖端的专用集成电路（ASIC）解决方案及先进电子技术，服务不同行业。应科院的专业技术应用范畴涵盖智能制造、汽车技术、人工智能及新一代电子封装等。



The Hong Kong Branch of the National Engineering Research Center for Application Specific Integrated Circuit System operates within the infrastructure of ASTRI. 应科院是国家专用集成电路系统工程研究中心香港分中心的依托单位。

As global demand for clean, reliable and sustainable energy solutions continues to rise, Hong Kong is positioning itself at the forefront of next-generation energy innovation. ASTRI develops advanced energy technologies spanning energy efficiency, energy absorption and energy generation that transform the way power is produced, stored and utilised. By commercialising innovative technologies and products, and enabling their adoption across industries, ASTRI aims to unlock a future where high-performance, safe and sustainable energy infrastructure drives economic growth while enhancing environmental resilience.

随着全球对洁净、可靠且永续的能源解决方案需求持续上升，香港也正积极布局，确立在新一代能源创新领域的领先地位。应科院开发先进的能源技术，涵盖能源效率、能源吸收及能源生成，彻底改变电力的生产、储存和使用方式。通过将创新技术和产品商业化，并促进其在各行业的应用，应科院旨在开创一个由高性能、安全且永续的能源系统驱动的未来，平衡经济发展与环境韧性。

Green and ESG Technologies 绿色与永续发展科技



Driving Innovation Through Advanced Infrastructure 以先进设备推动创新



As the world accelerates towards a low-carbon future, Hong Kong is advancing sustainable innovation through Green and ESG technologies. ASTRI integrates environmentally responsible materials, circular economy solutions and intelligent analytics to reduce carbon emissions and promote sustainability. These efforts address urgent global challenges whilst building the foundation for a resilient, environmentally conscious society that supports Hong Kong's net-zero ambitions.

随着全球加速迈向低碳未来，香港也致力透过绿色与ESG（环境、社会和公司治理）科技来推动永续创新。应科院整合环保物料、循环经济解决方案和智慧分析技术，减少碳排放并促进永续发展。这些努力不仅回应了迫切的全球性挑战，也为建构一个具韧性和环保意识的社会奠定基础，支持香港实现净零排放的目标。

Our R&D facilities are the foundation of cutting-edge research and innovation, offering advanced infrastructure to support development of key technological domains such as information and communication technologies, nanotechnology, and advanced materials.

Equipped with state-of-the-art instrumentation and backed by deep technical expertise, our R&D facilities play a vital and integral role in enabling multi-disciplinary research excellence. They create a dynamic environment where fundamental discovery seamlessly bridges with practical application, fostering breakthrough innovations that address real-world challenges.

Beyond advancing scientific knowledge, our facilities contribute significantly to Hong Kong's strategic positioning as an international innovation and technology hub, strengthening the city's competitive edge in the global knowledge economy.

我们的研发设施是尖端研究与创新的重要基石，借先进的基础建设，支援资讯与通讯技术、纳米技术及先进材料等关键技术的发展。

我们的研发设施配备最先进的仪器设备，加上科研人员的技术专长，在推动跨学科研究卓越发展方面扮演着至关重要的角色。设施营造了一个充满活力的环境，让基础研发与实际应用无缝接轨，促进突破性创新以应对现实世界的挑战。

除了推进科学知识发展，我们的设施亦为香港建立国际创新科技中心的战略定位作出重大贡献，巩固本港在全球知识型经济中的竞争优势。

Leading Innovations • Breaking Boundaries 引领创新 突破界限

ASTRI, Hong Kong's leading government-funded research and development centre, boasts a world-class R&D team and is committed to advancing the entire scientific research ecosystem. By fostering connections among key stakeholders, ASTRI plays a vital role in bridging upstream research with downstream industrial market development. Through strategic collaboration between government, industry, academia, research institutions and investors, ASTRI is instrumental in establishing Hong Kong as a leading international innovation and technology hub. 应科院是香港最具规模的政府资助研发中心，不仅拥有庞大的研发团队，更积极完善整个科研生态圈的发展，联系不同的持份者，既促进上中游研究，同时亦加强下游产业的发展，推动更多政产学研投协作，支持香港发展成为国际创新科技中心。



Developing the **Ecosystem** with Industry Partners 与行业伙伴携手发展生态圈



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