XJTLU ENTREPRENEUR COLLEGE (TAICANG)

WHY NOW?

In a time of uncertainty, one sure thing is that education is facing enormous global challenges. There is a need to better align universities with business innovation in a fast changing industrial landscape, create the right talents for tomorrow's employers, and create 'SMART' knowledge-driven and informed leadership. The XJTLU Entrepreneur College (Taicang) has taken up that challenge full on, and invites you to be part of its journey.

LIST OF PROGRAMMES AND SCHOOLS

SCHOOL	PROGRAMME	INDUSTRY PARTNER
AI and Advanced Computing	BEng Data Science and Big Data Technology	Sugon
Intelligent Manufacturing Ecosystem	BEng Intelligent Manufacturing Engineering	Haier
Intelligent Finance and Business	BSc Intelligent Supply Chain	AMT
Robotics	BEng Intelligent Robotics Engineering	Siasun
Internet of Things	BEng Internet of Things Engineering	Eolane
Cultural Technology	BA Arts, Technology and Entertainment	CCMG
CHIPS	BEng Microelectronic Science and Engineering*	SSCCM, SIMIT

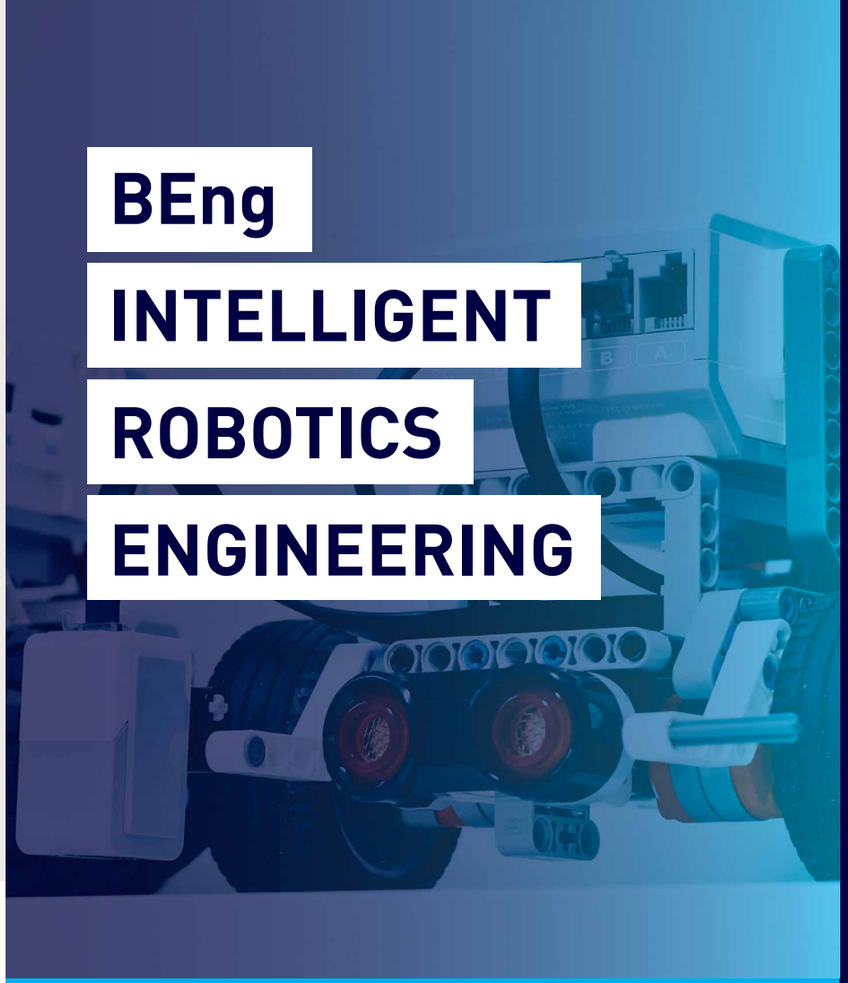
* Subject to UoL approval.

SYNTEGRATIVE EDUCATION

Syntegrative education is an innovative educational model targeted to produce international high-end applied talents with profound disciplinary knowledge and practical industry attainments as well as cross-cultural leadership, management and entrepreneurship skills aiming at competitiveness and employability enhancement.

In Short: Interest-oriented lifelong learning, innovation and entrepreneurial education.

SYNTEGRATIVE



BEng INTELLIGENT ROBOTICS ENGINEERING

XJTLU ENTREPRENEUR COLLEGE (TAICANG)

WHAT IS IT?

XJTLU Entrepreneur College (Taicang) is an exciting unique forward thinking 21st century solution to meeting the education challenges created by the 4th Industrial Revolution. Part of XJTLU, the most successful joint venture institution in China, the philosophy of XJTLU Entrepreneur College (Taicang) is to create unique industry themed schools through equal partnership with well-known and innovative businesses, delivered using the university Syntegrative Education model.

XJTLU

Xi'an Jiaotong-Liverpool University
西交利物浦大学

BEng INTELLIGENT ROBOTICS ENGINEERING

Following XJTLU's exciting and innovative Syntegrative Educational Model, this programme is an equal collaboration between the University and its industry partner, Siasun, at the School of Robotics in XJTLU Entrepreneur College (Taicang).

Students completing the degree programme will graduate equipped with the skills to pursue a career in the robotics, an emerging industry driven by rapid technological advancements.

Not only that, graduates from this unique programme will meet the needs of a wide range of employers both within and outside the industry sector as the educational model's unique focus on entrepreneurship and innovation provides you with the skills and abilities to think like an entrepreneur, providing the foundation for you to go on to become one of the leaders for tomorrow's new industries.

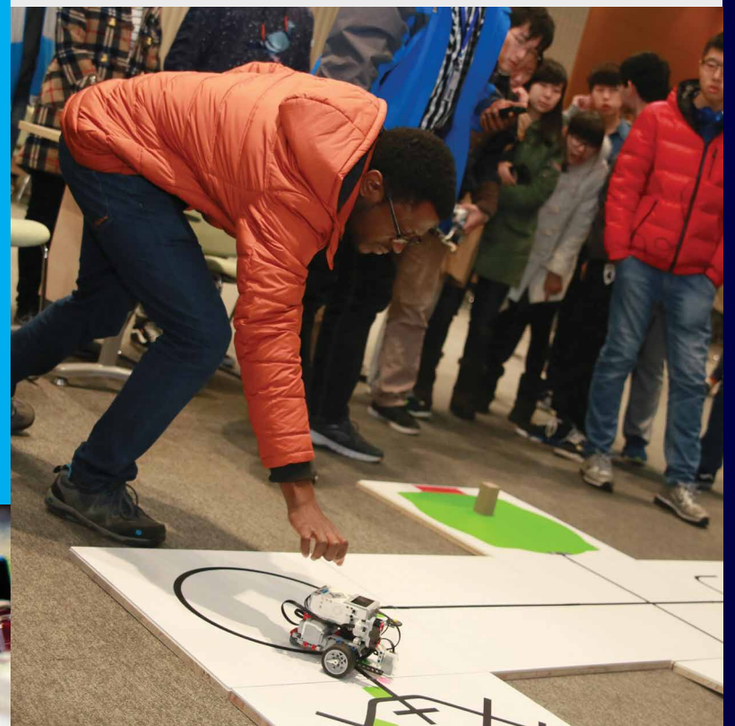
WHY STUDY INTELLIGENT ROBOTICS ENGINEERING AT XJTLU ENTREPRENEUR COLLEGE (TAICANG)?

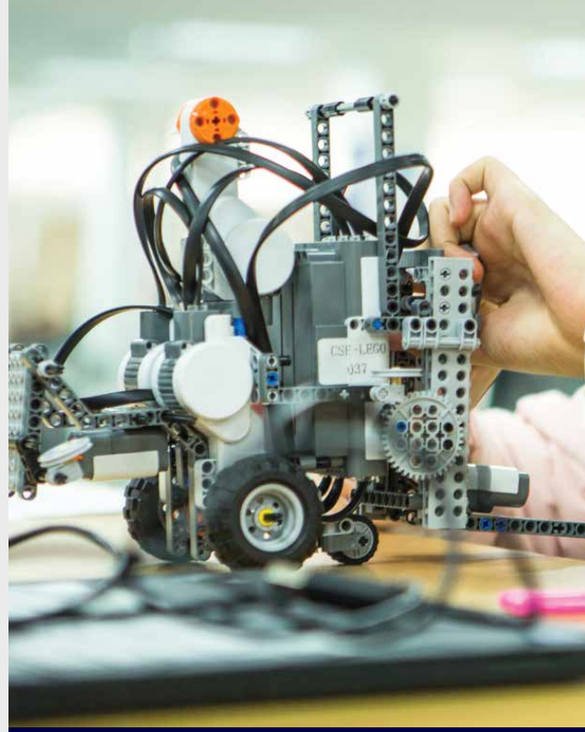
- Study in cutting-edge robotics and mechatronics laboratories equipped with the tools to work on robot-based projects such as industrial robots, autonomous robots and bioinspired robots
- Use and master state-of-the-art industrial software and hardware platforms to put acquired knowledge into practice, and to invent, design, develop, analyse, and operate robotics and other mechatronic systems
- Be part of a unique educational experience, preparing you to work in fast paced, rapidly changing, smart technology driven industries
- Benefit from XJTLU's strategic location in Taicang's High-Tech Development Zone with rapidly expanding technology-driven industries
- Learn through practical application, using your knowledge and skills in solving real problems in research and industry settings
- Learn from industry experts as part of the unique industry-themed school's partnerships with leading businesses
- Gain valuable entrepreneur and leadership skills through studying on the unique contemporary entrepreneur modules that are part of the degree, giving you a competitive edge in whatever career path you choose
- Study in purpose-built, state-of-the-art facilities in XJTLU's new Taicang campus (due to open in 2021)
- Graduate with world class qualifications, including two degrees: an XJTLU degree from the Chinese Ministry of Education and a globally recognised degree from the University of Liverpool, a member of the Russell Group of leading UK universities

WHAT YOU WILL LEARN

By the time you graduate from the programme, you will have:

- a solid understanding of the key concepts and theories in electronic, electrical, mechanical and mechatronic engineering, as well as in the field of computer science
- comprehensive knowledge of technologies related to robotics, including signal processing, electronics (analogue and digital), micro-processing systems, control systems, and mechanical engineering
- (engineering structures, engineering design, manufacturing) and the ability to apply these technologies in a practical setting.
- high-level communication, problem-solving and leadership skills that are transferable across a range of careers and industries
- hands-on industry experience gained through site visits and work placements





CAREERS AND FURTHER STUDY

Graduates from this programme are well prepared for careers in a range of local, national, and international engineering companies due to their well-rounded, multidisciplinary, and high-calibre engineering education. The programme also provides a solid foundation for further studies at masters and PhD levels in fields such as robotics, mechatronics, control and intelligent systems.

西浦创业家学院（太仓）

西浦创业家学院（太仓）特征

- 按行业设置学院，强化跨专业教育和行业训练。大学根据未来社会需要，选择了对未来人类发展具有重大影响的若干关键行业，通过与该领域国内外著名企业深度合作，联合创建相关行业学院。
- 创建学习超市，支持终身学习，提供线上线下教育资源和设施，支持和帮助学生及社会各界人士实现人生兴趣的终生追随。
- 打造开放式的创新工厂、研发群落、创业与企业港、企业与社会联盟，帮助支持学生和社会各界人士创意与创新的实现。
- 将通识教育、专业教育、行业教育与管理和创业教育融合，增强学生未来社会的适应能力、职业发展的驾驭力和终身学习的能力。
- 在课程模块上将主修专业与辅修专业融合，并在大一至大三期间，嵌入每年200小时的行业训练。学生毕业时，除获得英国利物浦大学和西交利物浦大学的学士学位外，还可额外获得创业创新辅修证书、行业实习实训证书。

融合式教育模式

通过大学与企业、行业和社会的深度合作模式，将通识教育、专业教育、行业教育、创业教育、管理与领导力教育融合起来，培养具有国际视野、能够站在人工智能和机器人的肩膀上驾驭未来新发展的行业精英甚或业界领袖。

- 与企业深度合作，将学习、实习、在岗训练、研究、创业、促进产业发展融合，不仅利于学生提前数年进入职场，而且为学生职业生涯发展搭建了通向未来行业、追随梦想的平台；同时也为合作企业伙伴引领未来新行业提供人才、技术、研发、商业模式和企业孵化的支持。

行业学院与专业设置

行业学院	本科专业	合作企业
人工智能与先进计算学院 AI and Advanced Computing	数据科学与大数据技术 BEng Data Science and Big Data Technology	中科曙光
智造生态学院 Intelligent Manufacturing Ecosystem	智能制造工程 BEng Intelligent Manufacturing Engineering	海尔集团
产金融合学院 Intelligent Finance and Business	供应链管理 BSc Intelligent Supply Chain	上海企源
智能机器人学院 Robotics	机器人工程 BEng Intelligent Robotics Engineering	中科新松
物联网学院 Internet of Things	物联网工程 BEng Internet of Things Engineering	欧朗中国
文化科技学院 Cultural Technology	艺术与科技 BA Arts, Technology and Entertainment	中国文化传媒集团
芯片学院 CHIPS	电子科学与技术* BEng Microelectronic Science and Engineering*	正科芯云， 上海微系统所

* 以中国教育部和利物浦大学审批结果为准。

BEng
机器人工程

西浦创业家学院（太仓）

西浦创业家学院（太仓）以融合和共生为主题，通过融合式教育培养行业精英，并进行面向未来的“教育新模式、大学新概念、校园新形态”三大实验，以期为中国和世界未来的高等教育提供西浦方案。

西交利物浦大学

Xi'an Jiaotong-Liverpool University
西交利物浦大学

BEng
机器人工程

为适应国家经济发展及科技进步和学科发展的需求，本专业专注于中国制造向“中国智造”转变大背景中的智能化、自动化的先进机械电子技术和应用与发展，旨在培养适应国际科技前沿和国家战略发展需求，符合社会和行业发展需要，熟悉国际规则和惯例，掌握机器人科技的基础理论和专业知识，具有从事机器人领域的工作技能，富于创新精神和实践能力以及较强国际沟通能力的高素质复合应用型人才。

本专业由西浦与企业合作伙伴中科新松共同开发，集合了控制科学与工程、机械工程、计算机科学与技术、材料科学与工程、认知科学等学科中涉及的机器人科学技术问题为研究对象，综合应用自然科学、工程技术、社会科学、人文科学等相关学科的理论、方法和技术，研究机器人的智能感知、优化控制与系统设计、人机交互模式等学术问题。

为什么选择西浦创业家学院（太仓）机器人工程专业：

- 主要学习机械工程、电子技术、控制理论与技术、人工智能理论与应用、工业机器人、服务型机器人等方面的基本理论和基础知识
- 接受机器人工程师的基本训练，培养机器人产品和系统的设计、制造、服务、性能测试与仿真、运行控制与管理等方面的基本能力
- 体验创新型融合式教育模式，为你在飞速发展、复杂变化、智能技术驱动的未来世界和行业中成为职业高手做好准备
- 在以行业为主题、与国内外知名企业共建的学院中，享有同时向专业学者和行业专家学习的机会
- 通过注重实践和应用的教学模式，培养你在研发和真实行业环境中解决实际问题的知识和技能
- 专业设置中嵌入创新创业辅修模块，额外获得领导力提升和创新创业训练
- 享受按照世界未来大学理念打造的西浦太仓新校园（预计2021年投入使用）
- 受益于太仓高新区良好的区位优势和成熟的外资产业载体
- 毕业生可获得中国教育部认可的西交利物浦大学学位和国际认可的利物浦大学学位

知识与技能

通过机器人工程专业的学习，毕业生将具备以下知识和技能：

- 掌握电子电气、机械工程、计算机科学的核心理论和知识
- 了解机器人技术相关知识及其应用，如信号处理、模拟和数字电路、微处理系统、控制系统、机械工程（工程结构、工程设计、制造）电子学数值计算与仿真技术相关
- 优良的沟通、交流、分析和解决问题的技能
- 在实习访学中获得的实践技能

升学与就业

本专业毕业生可在机器人设计研究单位、生产制造企业以及集成应用公司，从事机器人工作站设计、装调与改造，机器人自动化生产线的设计、应用及运行管理等技术或管理岗位工作。

毕业生也可以本科阶段学习为基础，继续到海内外顶尖大学攻读机器人工程领域的硕士学位。