INNOVATION AND TECHNOLOGY COMMERCIALIZATION PROFESSIONAL (ITCP) COURSE

—— INTERNATIONAL COOPERATION PROGRAMME ——
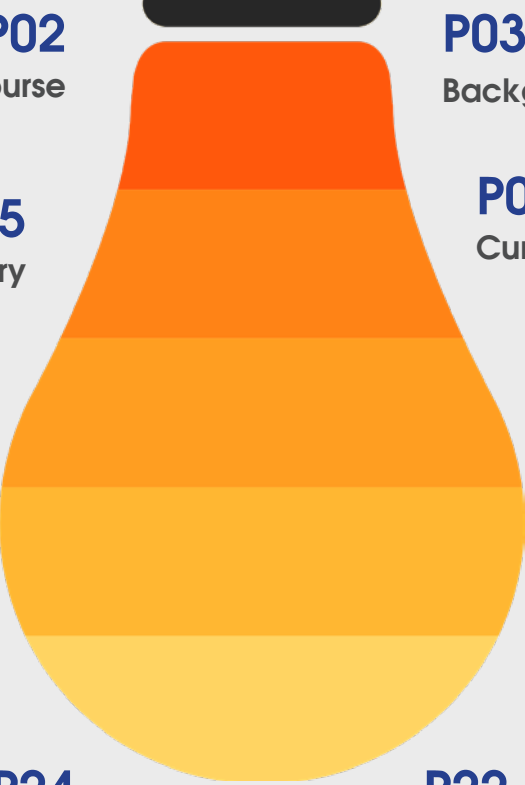
Join us for future open cooperation with worldwide ITCPs

Whatever you are the rookies or seniors in all fields relating to innovation and technology commercialization

The first systematic program based on APEC official project achievement
——Handbook on Technology Commercialization Practices in APEC Economies

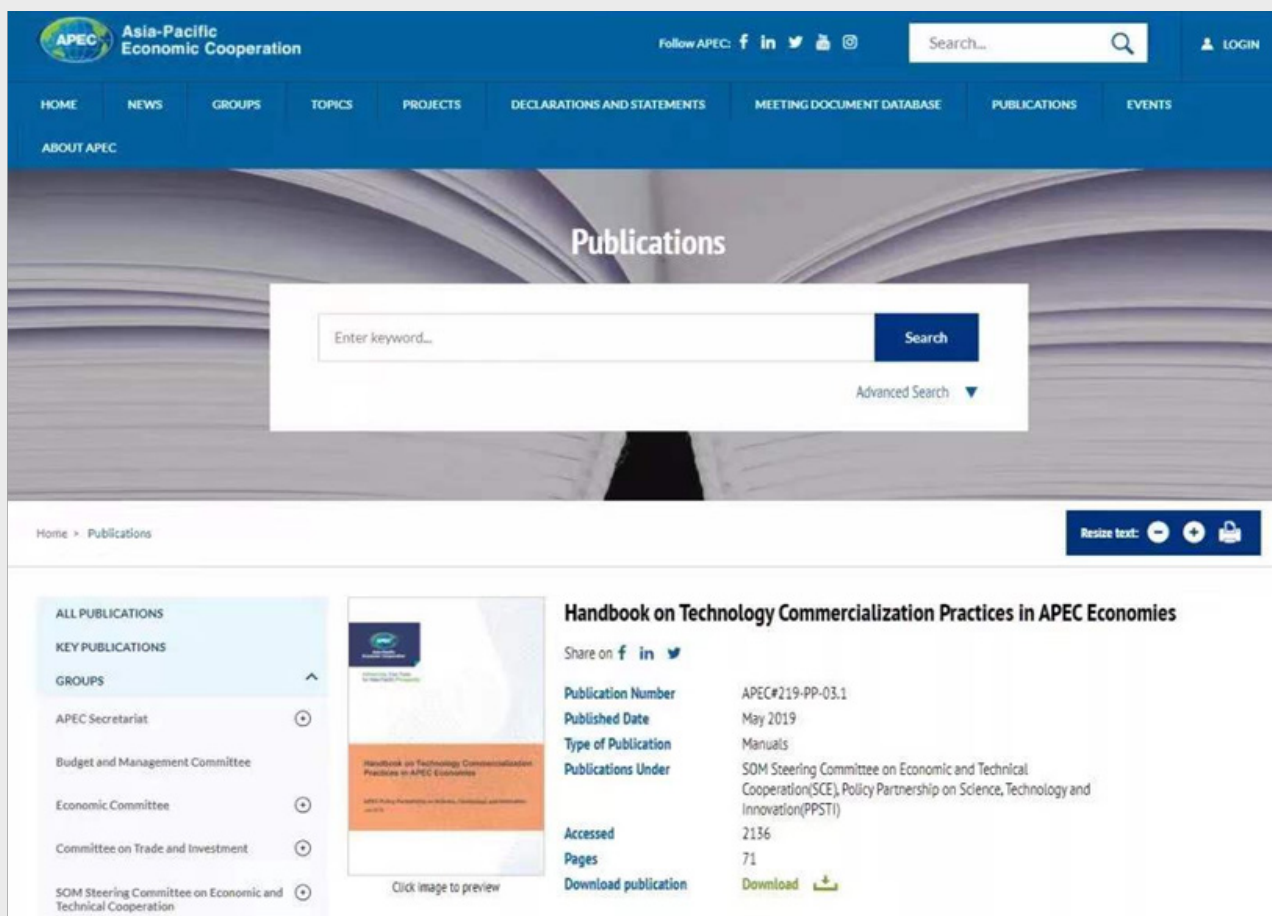# Contents

Why the ITCP Course

ITCP course has been created by the Enterprise Innovation Institute at Georgia Tech with the addition of best practices and the *Handbook on Technology Commercialization Practices in APEC Economies* from ITTN. In the context that universities and public sector research institutes are becoming more relevant players in the technology commercialization field, many organizations are adding professionals with the objectives of tapping into the wealth of ideas, innovations, inventions, and talent flowing from research institutes and universities, this course is intended to provide researchers, innovators, technology transfer professionals, technology commercialization professionals, and others in the field with a fundamental understanding of Innovation Technology Commercialization (ITC), and methods for creating more innovation and talent within an innovation ecosystem. The 30-hour course is delivered online and contains six main modules. The instructors are all from Georgia Tech, not only recognized academic experts, but also have experience as practitioners.

In 2021, the ITCP Course was initially offered in China and 785 learners successfully completed the bilingual pilot courses. Now we are working to expand the ITCP Program to increase the breadth of our curriculum for more experienced commercialization practitioners and the depth to increase its relevance to our global learners. We are looking forward to seeing you in ITCP course.

Background

With endorsement of Asia-Pacific Economic Cooperation (APEC) Policy Partnership of Science, Technology and Innovation (PPSTI) Work Group, and approval of APEC Secretariat and APEC Budget Management Unit (APEC PMU), International Technology Transfer Network (ITTN) operated "Foster International Technology Transfer (ITT) Professionals for the APEC STI Cooperation and Connectivity" APEC-Funding project in code of "PPSTI 01 2017A", and worked out the outcome document, Handbook on Technology Commercialization Practices in APEC Economies endorsed by all 21 APEC member economies. The U.S. State Department, Georgia Tech's Enterprise Innovation Institute (EI2), and ITTN were intimately involved in developing and vetting the Handbook on Technology Commercialization Practices in the Asia Pacific Economic Cooperation (APEC) Economies. The handbook establishes a consensus on some of the most important terminology, best practices, and know-how for innovation and technology commercialization professionals around the world, and it is the major underpinning for ITCP program.

Introduction to Georgia Tech

Georgia Institute of Technology, also known as Georgia Tech, is a top-ranked public college and one of the leading research universities in the USA. Georgia Tech provides a technologically focused education to more than 25,000 undergraduate and graduate students in fields ranging from engineering, computing, and sciences, to business, design, and liberal arts. Georgia Tech's wide variety of technologically-focused majors and minors consistently earn strong national rankings. Georgia Tech has six colleges and 28 schools focusing on Business, Computing, Design, Engineering, Liberal Arts, and Sciences.

Awards
• The world's top research universities
• With MIT, Caltech and also called the United States three major polytechnics
• 2020 QS World University Major Ranked 13th (Engineering and Technology)

Introduction to International Technology Transfer Network (ITTN)

ITTN founded in 2011, is a professional organization committed to promoting international technology transfer and innovation cooperation. It was launched and established by Beijing Municipal Science & Technology Commission, and guided by China Association for International Science and Technology Cooperation. The company not only supports national level programs from MOST (Ministry of Science and Technology of China), Ministry of Education, but also serves the S&T sectors in the key domestic regions of hi-tech industry. Its 11 offices were located at the most important regional innovation hubs in China, including Beijing, Qingdao, Shenzhen, Suzhou, Chengdu, Zhengzhou, Xi'an, Tianjin, Shanghai, Hangzhou and Kunming. There are also 9 overseas branches in Houston, Napoli, Berlin, London, Helsinki, Waterloo, Perth, Kuala Lumpur and Johannesburg.

Course Summary

Delivery: Self-paced online course through the internet Participants learn at their own schedule
Timetable: February/June /September, 2022
Length: 9-14 weeks
Effort: 3-4 hours/week
Language: Chinese and English
Price: $600

ITCP Definition

A professional that fosters the effective creation of inventions, ideas, and innovations at universities and research institutes for commercial or societal impacts; or is engaged in the associated innovation ecosystems, programs, and strategies to identify, guide, and advance promising opportunities to local, regional, and global markets.

Description

ITCP course can provide researchers, innovators, technology transfer professionals, technology commercialization professionals, and others in the field with a fundamental understanding of how to:

(1) Feed more innovation and talent into research institutions and the local innovation ecosystems

(2) Energize technology transfer practices with leading edge commercialization methods to ensure that more innovation is successfully commercialized in the market and is of benefit to society

(3) Nurture the growth of local innovation ecosystems across a country to stimulate commercialization between industry, academia, government, and startups

(4) Foster cross-border collaborations to move innovation into global markets

Course Goals and Learning Outcomes

By the end of the course, the learner will have:

• A basic understanding of the broad concepts of innovation and technology commercialization including:

- • The differences between technology transfer and technology commercialization
- • Why public funded research should provide a return to society
- • The importance of cross-border technology commercialization
- • The importance of melding traditional technology transfer practices with a modern lean startup approach
- • How universities participate in growing and supporting innovation ecosystems
- • How government policy impacts technology commercialization outputs and outcomes

• A basic understanding of Technology Transfer and Technology Commercialization Activities

- • How innovation can be infused into an ecosystem
- • How an entrepreneurial mindset can be infused into an ecosystem
- • The best practices of technology transfer
- • How technology commercialization engages the market/society throughout the process from invention to commercialization (going beyond technology transfer)

Course Structure

Learning will be facilitated through the following components which are provided through the online learning platform:

1. Lecture Video(s) – For the optimal experience we recommend using a laptop to view lectures videos.
2. Reading Requirements
3. Case Studies/Experiential Exercises
4. Practice Quizzes (not graded)
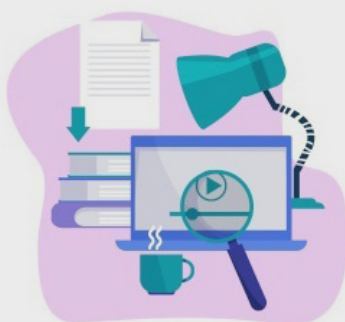
Grading

Course grades will be based on the final exam:

Assignment	Weight	Description
Final Exam	100%	50 questions 60-minute time limit 3 Attempts Total • 2 attempts automatically allowed • The third and final attempt is granted after you email itcp. help@innovate.gatech.edu
TOTAL	**100%**	

The following grading scale will be used:

Pass	**⩾ 70%**
Fail	< 70%

Certification

Passed the final exam, learners will be awarded an official "Innovation & Technology Commercialization" professional certificate of completion. After the official course end date, learners will be notified via email that the e-certificate is ready for downloading.

Example of the Certificate

Curricular

Module 1.0: Overview of Course

The 30-hour, online course contains six main modules which cover the commercialization pathway from research and ideation to innovation to commercialization in the market or society. The content is not specific to practitioners in any single country, but it applies globally to practitioners from across all countries.

Module 2.0: Introduction to Technology Commercialization

This introductory lecture defines technology commercialization and its interrelationship with technology transfer. It describes the application of modern technology commercialization practices toward the optimization of commercialization activity in the market or society. Finally, it provides an overview of the importance of robust innovation ecosystems and cross-border collaborations in research, innovation, and commercialization.

Module 3.0: Introduction to Feedstock for Technology Commercialization

This module is a series of six lectures on the essential feedstocks of commercialization: research, talent, and innovation. Topics covered include policy initiatives, government and industry research funding, government and industry collaborations, innovation

approaches, innovation models, responsible innovation, and talent development. As a participant, you will gain an understanding of how ideas move from minds and labs toward something with commercial potential.

Module 4.0: Introduction to Traditional Technology Transfer Practice

There are numerous organizations which will provide country specific training on technology transfer which is in keeping with country or regional laws. This field is very complex and its totality is not within the scope of this course. However, this series of four lectures provides a basic overview of the technology transfer process within a research institution, including ideas on how to set-up a technology transfer office. It is important for you, the participant, to understand these concepts, as technology transfer is an important part of the overall commercialization pathway from idea to market or society.

Module 5.0: Introduction to Technology Commercialization Stage 1 – From Innovation to License/ Spin-off

In 2011, a new process was being piloted in the United States, to apply lean startup principles to the evaluation and often redirection of research and innovation towards

a commercial or societal application. In short, these principles were being applied to increase the conversion of government research funding for research institutions into solutions that benefit society. Georgia Tech was one of the first two universities to undertake the pilot within its VentureLab faculty and student accelerator. These six lectures will cover important lean startups principles and how they can impact commercial outcomes. As a participant, you will be able to understand the basic principles of lean startup and its application in the transformation of technology transfer into technology commercialization.

Module 6.0: Introduction to Technology Commercialization Stage 2 – Pathways to Market/Society

Once an innovation leaves a research institution, it must survive the transition from lab to marketplace. There are various pathways to the market or society which depend on where the technology is licensed. In this series of four lectures, we will examine the different pathways that corporations, startups, governments, and non-profits take in getting to the market or society. As a participant, you will gain an understanding of the challenges faced by various types of entities which launch new innovations. This will give you a greater understanding of the larger context of the commercialization pathway, and how you may support this external effort.

Module 7.0: Introduction to Technology Commercialization Opportunities for Research Institutions within Innovation Ecosystems and Across Borders

There is a greater world beyond the boundaries of research institutions. Technology transfer and commercialization practitioners have an important role to play in local innovation and startup ecosystems and in cross-border collaborations. This grouping of five lectures will give you, the practitioner, an understanding of the broader role of research institutions in engaging with industry, startups, non-profits, entrepreneurs, and other universities locally and globally. The role of research institutions is no longer just to produce great students or new knowledge. They must now connect and support economic development activities on a local and global scale to create jobs and improve the human condition.

Module 8.0: Demonstrating Knowledge

Now that you have completed the course, we will review how to prepare for the exam. This exam will allow you to demonstrate the knowledge you have acquired and will serve as the basis for your certificate of completion.

Course Outline

Because this course is asynchronous, learners can study the material at their own pace. Below are some example schedules based on how quickly the learner wants to complete the course.

Module	Topic	Assessments
1	Overview of Certificate Course	None
1	Syllabus Quiz	Practice Quiz
2	Introduction to Technology Commercialization	Practice Quiz
3	Introduction to Feedstock for Technology Commercialization	None
3	Module 3.1: Government and Industry Research	Practice Quiz
3	Module 3.2: Innovation Approaches	Practice Quiz
3	Module 3.3: Innovation Models	Practice Quiz
3	Module 3.4: Responsible Research and Innovation	Practice Quiz
3	Module 3.5: Nurturing Talent	Practice Quiz
3	Module 3.6: Talent Development	Practice Quiz
4	Introduction to Traditional Technology Transfer Practice	None
4	Module 4.1: Intellectual Property (IP)	Practice Quiz
4	Module 4.2: Typical Process for Intellectual Property Protection	Practice Quiz
4	Module 4.3: Traditional Technology Transfer	Practice Quiz
4	Module 4.4: Best Practices	Practice Quiz
5	Introduction to Technology Commercialization Stage 1	None
5	Module 5.1: Tech Transfer Revolutionized by Customer Inquiry	Practice Quiz
5	Module 5.2: Technology Commercialization Outcomes	Practice Quiz
5	Module 5.3: Discovery and Validation 1	Practice Quiz
5	Module 5.4: Discovery and Validation 2	Practice Quiz
5	Module 5.5: From Lab into the World	Practice Quiz
5	Module 5.6: Company Creation	Practice Quiz
6	Introduction to Technology Commercialization Stage 2	Practice Quiz
6	Module 6.1: Commercialization Pathways to Market	Practice Quiz
6	Module 6.2: Startup Commercialization Pathways	Practice Quiz
6	Module 6.3: Corporate Commercialization Pathways	Practice Quiz
6	Module 6.4: Non-Profit Commercialization Pathways	Practice Quiz
7	Introduction to Technology Commercialization Opportunities for Research Institutions	None
7	Module 7.1: Research Institutions as Leaders in Innovation-led Economic Development	Practice Quiz
7	Module 7.2: Innovation Ecosystems	Practice Quiz
7	Module 7.3: Role of Research Institutions in Innovation Ecosystems	Practice Quiz
7	Module 7.4: Role of Research Institutions in Startup Ecosystems	Practice Quiz
7	Module 7.5: Cross-Border Engagement	Practice Quiz
8	Concluding Review of ITCP Course	None
-	Final Exam	Exam

ITCP Associate Level Work Plan

Past learners have taken approximately **30 – 40** hours on average to complete the course, though some have taken more time.

4 Weeks
Based on Average of 1.0 - 1.5 Hours Per Day or 8 - 12 Hours Per Week

Day	Week	Work Plan
1	1	Instructors Biographies _M1.0
2		M2.0
3		M3.1
4		M3.2
5		M3.3
6		M3.4
7		M3.5
8	2	M3.6
9		M4.1
10		M4.2
11		M4.3
12		M4.4
13		M5.1
14		M5.2
15	3	M5.3
16		M5.4
17		M5.5
18		M5.6
19		M6.1
20		M6.2
21		M6.3
22	4	M6.4
23		M7.1
24		M7.2
25		M7.3
26		M7.4
27		M7.5
28		M8.0_Review_Final Exam

2 Weeks
Based on Average of 2.0 - 3.0 Hours per Day or 15 - 20 Hours Per Week

Day	Week	Work Plan
1	1	Instructors Biographies _M1.0
		M2.0
2		M3.1
		M3.2
3		M3.3
		M3.4
4		M3.5
		M3.6
5		M4.1
		M4.2
6		M4.3
		M4.4
7		M5.1
		M5.2
8	2	M5.3
		M5.4
9		M5.5
		M5.6
10		M6.1
		M6.2
11		M6.3
		M6.4
12		M7.1
		M7.2
13		M7.3
		M7.4
14		M7.5
15	3	M8.0_Review_Final Exam

1 Weeks

Based on Average of 5.0-6.0 Hours per Day for 5 Days

Day	Week	Work Plan
1	1	Instructors Biographies _M1.0
		M2.0
		M3.1
		M3.2
		M3.3
		M3.4
		M3.5
2		M3.6
		M4.1
		M4.2
		M4.3
		M4.4
		M5.1
3		M5.2
		M5.3
		M5.4
		M5.5
		M5.6
		M6.1
4		M6.2
		M6.3
		M6.4
		M7.1
		M7.2
5		M7.3
		M7.4
		M7.5
		M8.0_Review_Final Exam

4 Weeks

Based on Average of 7.0-10.0 Hours per Day for 4 Weekends

Weekend	Work Plan
1	Instructors Biographies _M1.0
	M2.0
	M3.1
	M3.2
	M3.3
	M3.4
	M3.5
2	M3.6
	M4.1
	M4.2
	M4.3
	M4.4
	M5.1
	M5.2
	M5.3
3	M5.4
	M5.5
	M5.6
	M6.1
	M6.2
	M6.3
	M6.4
	M7.1
4	M7.2
	M7.3
	M7.4
	M7.5
	M8.0_Review_Final Exam

Instructors

David Bridges

Vice President, Enterprise Innovation Institute at Georgia Institute of Technology; Vice President, Georgia Advanced Technology Ventures

David Bridges is the Vice President for the Enterprise Innovation Institute at Georgia Institute of Technology and Georgia Advanced Technology Ventures. Previously, David served as the Director of the EI2's Economic Development Lab which advises governments and universities, both in the U.S. and around the globe, on innovation-led economic development initiatives (ILED). ILED activities foster collaborations among informal network players such as governments at all levels, universities, corporations, startups businesses, entrepreneurs, and entrepreneurial support organizations to drive the development of startup ecosystems. Our practice focuses on maximizing the building blocks of startups, sources of innovation and sources of talent, and focusing the collective effort required to enable the success of these valuable startups. As Associate Vice President for International Initiatives, he has been engaged in innovation ecosystem projects in Europe, Latin America, Africa, and Asia. Mr. Bridges has been a member of EI2 for over 23 years. In that time, he has gained experience managing programs around technology commercialization, co-development research, SBIR grants, seed fund management, international commercialization, incubation, acceleration, proof-of-concept centers, cluster development, university innovation centers, and innovation ecosystem. In total, Mr. Bridges has led, co-led or advised on proposals resulting in over $42 million in innovation related grants for Georgia Tech.

Lynne Henkiel

Interim Director of Economic Development Lab in the Enterprise Innovation Institute (EI2)

Lynne Henkiel is the Director of Innovation Ecosystems in the Enterprise Innovation Institute (EI2). She has been involved in developing EI²'s innovative ecosystems development practices, aiding communities to develop their entrepreneur base through research and education. She also has been the developer for the incubation health assessments tool and instrumental in developing the Georgia Tech Soft Landings program for international companies looking to grow into the US market. Her career at Georgia Tech has focused early on with commercializing innovations from NASA's Kennedy Space Center, Stennis Space Center, and Marshall Space Flight Center. Within her responsibilities of working with startup companies that licensed NASA technology, she worked in partnership with startup entrepreneurs to overcome many of the early pitfalls of starting a technology business. She also managed the dual-use industry partnerships for NASA Marshall involving both large and startup businesses. She has also been the Primary Investigator for the U.S. Economic Development Administration's University Center program for over 10 years a program that helps develop entrepreneurial education throughout communities in the southeastern US. Lynne also sits on the executive board of the Technology Association of Georgia's International Society, as well as the International Business Innovation Association.

Lynne holds a Master of Science in Technology Management from the University of Miami.
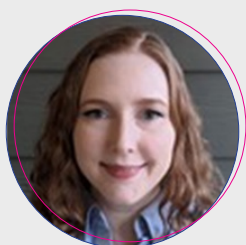
Lauren Lange

Program Manager

Lauren Lange is an associate program manager on the Economic Development Lab Team. She supports the Innovation and Technology Commercialization Professional Course by teaching guest lectures and hosting interactive sessions for clients. Additionally, Lauren facilitates the ITCP internship program, allowing multilingual Georgia Tech students to gain valuable career experience in innovation while earning academic credit. She joined the team after seven years of working in entrepreneurial education at the Advanced Technology Development Center, Georgia's state startup incubator.

Lauren earned her undergraduate degree in International Affairs and Chinese from the Sam Nunn School at Georgia Tech. While completing her bachelor's, she interned at the Georgia Department of Economic Development and The Carter Center. In December 2021, she earned her master's degree from Georgia Tech in International Affairs, specializing in global development and technology.

Keith McGreggor

Director of the VentureLab in the Enterprise Innovation Institute (EI2)

Keith McGreggor, VentureLab's director, also serves as the lead instructor for the NSF Innovation Corps (I-Corps) program for Georgia Tech, a founding node in the I-Corps network. He is also a member of the NSF I-Corps curriculum committee and gives frequent invited talks on the foundations of evidence-based-entrepreneurship philosophy.

Keith has been an entrepreneur for the last three decades. His first company, Artificial Intelligence Atlanta, was the first AI company in the southeast, which led to a gig in robotics for Lockheed. He has been a founder or co-founder of six software companies.

Keith wrote and shipped the first 3D program and first color paint program for the Macintosh. He developed the color architecture for the Macintosh, wrote substantial portions of the graphics system, and managed the graphics group at Apple Computer in Cupertino. A stint as co-founder of an internet company in the mid-1990s led to Keith becoming a director of engineering at Yahoo! in 1999.

Keith holds a BS, MS, and PhD in computer science from Georgia Tech, and is an instructor of Georgia Tech's new StartupLab for undergraduates in the College of Engineering. In addition to his role at VentureLab, Keith holds an appointment as Professor of the Practice in the School of Interactive Computing at Georgia Tech and is the Associate Director of Georgia Tech's GVU.

Brandy Nagel

Research Faculty at the Atlanta Minority Business Development Agency (MBDA) of the Enterprise Innovation Institute (EI2)

Brandy Stanfield-Nagel is a Program Manager and Faculty Researcher at the Atlanta Minority Business Development Agency (MBDA) and the Southeast MBDA Growth Innovation Hub as well as offering business assistance to Minority Business Enterprises (MBEs).

She has been involved in university commercialization programs since 2012, working with students, faculty and staff on spinning up technology-based startups. In addition to her work with early-stage entrepreneurs, she nurtures mentor networks and faculty learning communities focused on entrepreneurship and innovation. Her recent projects include teaching a faculty development program on innovation and entrepreneurship, delivering a workshop on business model canvas and customer discovery, developing a mentor network to support a community of entrepreneurs, and establishing an entrepreneurship support program at an under served community center.

Monica Novoa

Research Faculty in the Economic Development Lab of the Enterprise Innovation Institute (EI2)

Monica is a Research Faculty in the Economic Development Lab of the Enterprise Innovation Institute (EI2) at the Georgia Institute of Technology. In this role, she leads projects in Latin America and the Caribbean to strengthen regional innovation economies. Her practice areas include applying evidencebased-entrepreneurship principles and technology extension concepts for the development of innovation ecosystems that support entrepreneurs and strengthen the industrial base of communities, countries and regions. She has managed projects for diverse entities such as universities, university business incubators, non-profit organizations, economic development agencies and the private sector

in Puerto Rico, Chile, Colombia, Perú, and Panamá, among other countries.

Monica's 13-year career encompasses economic development, entrepreneurship education, and private sector management. Prior to joining Georgia Tech, Monica was Associate Director at the Stanford University's Graduate School of Business (GSB), where she led Stanford Ignite, an innovation and entrepreneurship program. Before Stanford, Monica served as Director at the School of Management of the University of San Francisco, leading a portfolio of entrepreneurship education and consulting programs. She also worked as Finance Manager for a boutique intellectual property law firm in California.

Monica holds a MBA in Finance and Marketing from the University of San Francisco in California and a Bachelor's Degree in Systems Engineering from Universidad de Oriente, Venezuela.
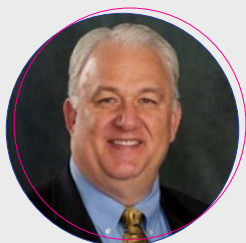
Carl A. Rust

Guest Instructor

Jan Youtie

Director of Policy Research Services in the Enterprise Innovation Institute (EI2)

Carl A. Rust is the Executive Director of Industry Engagement and Business Development at the University of Massachusetts System. Previously, he was the Principal Director in the Office of Industry Collaboration at the Georgia Institute of Technology where he was responsible for pursuing the university's industry-university collaboration, entrepreneurship, commercialization, innovation, and economic development goals. He also served as the Innovation Ecosystem Director for the Center for Cell Manufacturing Technologies (CMaT), an Engineering Research Center (ERC) of the National Science Foundation (NSF).

His prior industrial experience includes serving as an engineering manager at Texas Instruments and co-founding four technology-based start-up companies. He has a bachelor's degree in electrical engineering from The Citadel and has seventeen publications. Carl was a 2014 Fulbright award recipient to study the higher education and research system of France. He sits on the advisory boards of the Center for the Development and Application of Internet of Things Technologies (CDAIT), Southeastern Nanotechnology Infrastructure Corridor (SENIC), and The Citadel's Department of Electrical and Computer Engineering.

Jan Youtie, PhD is Director of Policy Research Services in the Enterprise Innovation Institute at Georgia Institute of Technology. She is the director of the Technology Policy Assessment Center and co-directs the Program in Science, Technology, and Innovation Policy. Her research focuses on advanced manufacturing, innovation and research systems assessment, emerging technology identification, bibliometric and patent analysis, and innovation and knowledge measurement and evaluation. Her work has been sponsored by the U.S. Department of Commerce, National Science Foundation, European Commission, Expertenkommission Forschung and Innovation, U.N. Development Program, and the Georgia Research Alliance among others.

Dr. Youtie was a country correspondent for the European research and innovation policy networks ERAWATCH and PROINNOWATCH, TrendChart (2007-2013). She co-led the project Institutions for Technology Diffusion (2015) for the Inter-American Development Bank. She was a co-author for the OECD 2017 report The Next Production Revolution: Implications for Governments and Business, (243-270). She was moderator and expert providing input to the National Science Foundation's innovation survey workshop (2018).

Dr. Youtie's research received the Lang Rosen Gold Award for best article by the Journal of Technology Transfer, and it also has appeared in Research Policy, Economic Development Quarterly, Technovation, Research Evaluation, Nature Nanotechnology, and other journals. She has been recognized as one of the top authors in technology and innovation management research by the International Association of Management of Technology. She holds a doctorate in political science from Emory University.

Successful Story: Innovation Commercialization Technology Commercialization for Professionals Pilot Course in China

Customer Profile

The Economic Development Lab in the Enterprise Innovation Institute (EI2) at Georgia Tech recently developed and launched the Associate Level Innovation and Technology Commercialization Professional (ITCP) course through Tech's Professional Education program.

This asynchronous course contains the latest instruction of best practices in technology commercialization, and utilizes the Asia Pacific Economic Council (APEC)'s Handbook specifically developed for its members' use and reference of technology commercialization practices. The International Technology Transfer Network (ITTN) developed this handbook at the request of the APEC. The Georgia Tech ITCP course launched its pilot cohort in March 2021. It is intended to provide researchers, innovators, technology transfer professionals, technology commercialization professionals, and others in the field with a fundamental understanding of how to:

1. Feed more innovation and talent into research institutions and the local innovation ecosystems,
2. Energize technology transfer practices with

3. leading edge commercialization methods to insure that more innovation is successfully commercialized in the market and society in an equitable manner,
4. Nurture the growth of local innovation ecosystems across a country to stimulate commercialization between industry, academia, government, and startups, and Foster cross-border collaborations to move innovation into global markets. The educational materials will be applicable to professionals regardless of size of economy, development status, and location (Asia, Europe, Africa, Americas, Oceania).
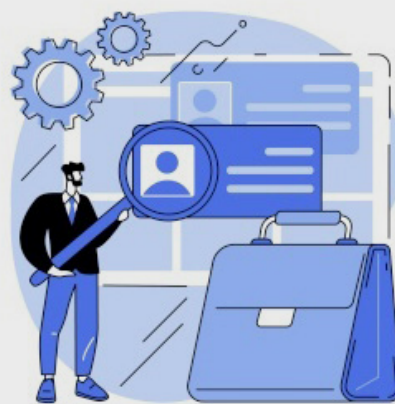
Situation

China was selected as the pilot location for a variety of both strategic and opportunistic reasons. China is a rapidly growing market for technology commercialization professionals with well over 100,000 potential ITCP students. The U.S. State Department, Tech's EI2, and the International Technology Transfer Network (ITTN) were closely involved in developing and vetting the APEC Handbook of Technology Commercialization which has been a key underpinning of the pilot ITCP program. This handbook establishes a consensus on some of the most important terminology, best practices, and know- how for innovation and technology commercialization professionals around the world. In addition, the ITCP program is strategically aligned with Georgia Tech's commitment to global service, international impact, and economic development. While the pilot course was launched in China, the intent is to establish the ITCP program as an international standard to level the playing field for smaller and less developed countries. These objectives are directly connected to the U.N. Sustainable Development Goals (SDGs) which are a blueprint to achieve a better and more sustainable future for all. Particularly, goal 4 – to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; goal 8 – to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; goal 9 - to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; and goal 17 – to strengthen the means of implementation and revitalize the global partnership for sustainable development, convergence of unique capabilities, global connections, and impactful opportunities.

Solution

As one of the largest and most comprehensive, university-based organizations in the world focused on the practice of innovation-led economic development and technology commercialization, Georgia Tech's Enterprise Innovation Institute is globally recognized and uniquely qualified to champion the ITCP program. Additionally, Georgia Tech Professional Education has instructional design capabilities and technical framework for developing and delivering asynchronous remote learning.
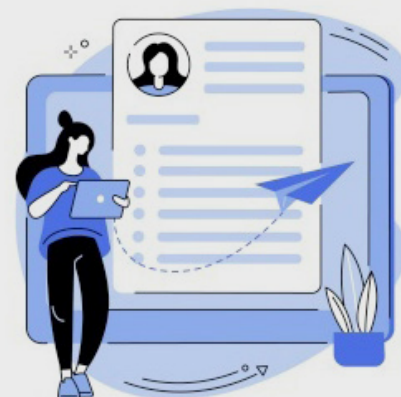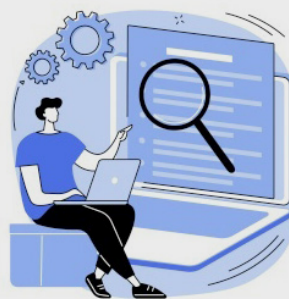
Results

Through this collaboration, the EI2 and ITTN teams have asynchronously executed four pilot cohorts containing 960 total students coming mainly from technology (40 percent), university, research and development (17 percent) and government (12 percent) careers. With an average student age of 36, and with more than half of all students having less than 5 years of experience, this program has been validated by its initial targeted audience. Even though this course targets students with almost no experience, students with vast experience also benefited from the course structure and content and reported they were not previously exposed to a formal and standardized course that covered the main topics a technology transfer professional should know. In terms of gender, the course has been almost equally attended by highly educated males and female students, with 11 percent of all students who participated in the pilot programs having a doctorate degree, 52 percent earning a master's degree, and 31% having a bachelor's degree. The role of entrepreneurs and startups in an innovation ecosystem (52 percent) and the role of universities and research institutes in an innovation ecosystem (57 percent) have been the two most learned topics and skills among the enrolled students. Over 79% of the total students graduating from the ITCP course stated that they are extremely likely (42 percent) and very likely (37 percent) to recommend this course.

In total, 785 Chinese learners have completed the ITCP Course to date and received a certificate from Georgia Tech Professional Education (GTPE).

Based on the positive feedback and interest in the technology commercialization topic expressed by the Chinese students, a principal level and senior level is under consideration for future development.

Part of our Target Audiences for the ITCP Course: 2021 Teacher Training Course on Transformation of Scientific and Technological Achievements, Innovation and Entrepreneurship for Higher Education

Testimonials

Yiyan Liu: CEO of US-China Innovation Alliance

Comments: "For the current associate level course, it has been well done and the information is very comprehensive. The course structure is also very good and quite clear. The breakdown of lecturers is also quite good, each lecturer has his/her own area of expertise and characteristics. The lectures are easy to digest and understand."

- From Focus Group Interview

Jingxin Chen: Professor of Vehicle Engineering and Mechanical Manufacturing in Yangzhou University

Comments: "It is a great honor to have the opportunity to participate in such a wonderful program of "ITCP" held by your university. The whole program is rich in content, and each teaching link has been carefully designed. The content taught by each teacher is very wonderful, the translation is accurate, and the extracurricular reading materials are diversified and informative."

- From Email

Jianshu Gao: Project manager of German Institute of Innovation and Technology (GIT)

Comments: "Many courseware will have a summary of this course at the end, which allows us to quickly review the important content of this course, which is very good and can deepen the memory of key knowledge once again."

- From Survey

Qian Geng:

Comments: "This method system is very good and very practical. It is very helpful for those who want to start a business, those who are starting a business, and those who have already done it under the existing system of a large company."

- From Survey

Yiyin Xu: International Technology Transfer Technology Manager of Changzhou Engineering and Technology Institute of Jiangsu University

Comments: "Every lecturer gives clear presentations with their own characteristics. Thanks for all lecturers! I in particular prefer the lectures given by Prof. McGreggor and Ms. Nagel for I can sense their passions for innovation and in sharing their experience in tech commercialisation practices. Lively and touching lectures ^ _ ^ And the overall online learning experience is very good. Thanks for your excellent service for integrating these important learning modules and providing intime feedback and translations. Hopefully we can meet in the future."

- From Survey

ITCP 1.0 is Ongoing

In 2021, Georgia Tech and ITTN teams have asynchronously executed four pilot cohorts containing 960 total students coming mainly from technology (40%), university, research and development (17%) and government (12%) careers. In total, 785 Chinese learners have completed the ITCP Course to date and received a certificate from Georgia Tech Professional Education (GTPE). Some of participants of ITCP 2021 pilot corhorts have engaged in various cross-border technology commercialization events organized by ITTN like technology project matching activities, technology roadshows and innovation competitions, etc. Based on the success of 2021 pilot courses, ITCP has been updated to 1.0 version for an international level and ITCP 1.0 is expected to enroll international learners working in relevant fields.There will be 3 corhorts in total and the fisrt one (Spring corhort) is in progress.

"2021 ZGC International Technology Trade Fair - New Stars of Innovation and Technology Commercialization" Release and Award Ceremony

Join ITCP Network for More Opportunities

As an international level course, we are inviting technology and innovation participants worldwide to join us. After completing the course and getting certificates from Georgia Tech, they will play an important role on technology commercialization cooperation activities, and will be provided more practical opportunities for international technology transfer activities to connect global innovation resources.

We are looking forward to participants in the following directions:

- Personnel from international universities and research institutes, who works in international cooperation departments of technology transfer and industrial innovation.

- Personnel from experts team of laboratories for innovative technologies in key industrial areas, who works in technology transfer and international cooperation in industrial innovation.

- Personnel from innovative technology industrialization platform institutions (technology transfer professional service institutions, science and technology parks, incubators and accelerators), who works in departments of technology transfer and international cooperation in industrial innovation.

- Personnel from innovative enterprises in key areas, who works in departments related to technology transfer and international cooperation in industrial innovation(R&D, IP, international cooperation, BD) .

- Personnel from organizations related to international technology transfer professional service (law firms, IP, consulting, investment, testing, evaluation, R&D outsourcing services-CRO, academic journals, exchange event organizers, etc.), who works in departments of technology transfer and international cooperation in industrial innovation.

- Personnel from professional organizations for technology transfer (technology commercialization), international (local) academic (industry) organizations in key areas of industrial innovation, who works in departments of technology transfer and international cooperation in industrial innovation.
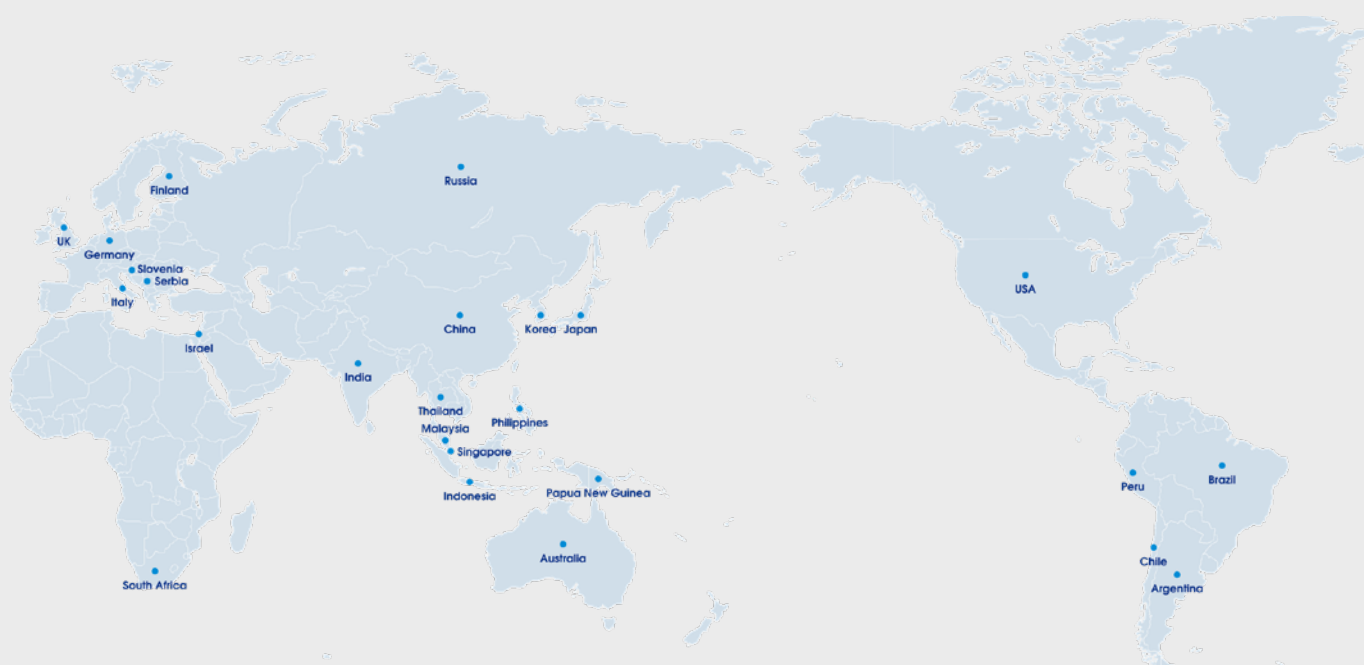
Opportunities

- Learn professional knowledge(theories and practices) regarding to international technology commercialization;

- Become one of the members of global ITCP network;

- Link more international resources belonging to ITCP course developer, organizer or other participants;

- Get more pratical opportunities for innovation and international technology commercialization;

- Improve potentially the influence of institutes where the learners are in.

Roles ITCP learners will play

- Based on their professional background institutions, provide professional technology manager consulting services legally and compliantly;

- Connect with local technology supply resources and explore and sort out high-quality demands;

- Provide information materials related to cross-border technology commercialization projects;

- Participate in international technology transfer platform construction and exchange activities;

- Participate in cross-border technology commercialization-related thematic research programs.

Worldwide ITCPs

How to Apply

You can register by filling in the registration form attached or log on to the Georgia Tech official website (https://www.gatech.edu/) to register online.

Registration and Start Time:

The first cohort is scheduled to start on **February 15th** 7:00 CST and end on **May 9th** 23:59 CST (May 9th 11:59 EST)

The second cohort is scheduled to start on **June 13th** 7:00 CST and end on **August 15th** 23:59 CST (August 15th 11:59 EST)

The third cohort is scheduled to start on **September 6th** 7:00 CST and end on **December 15th** 23:59 CST (December 15th 11:59 EST)
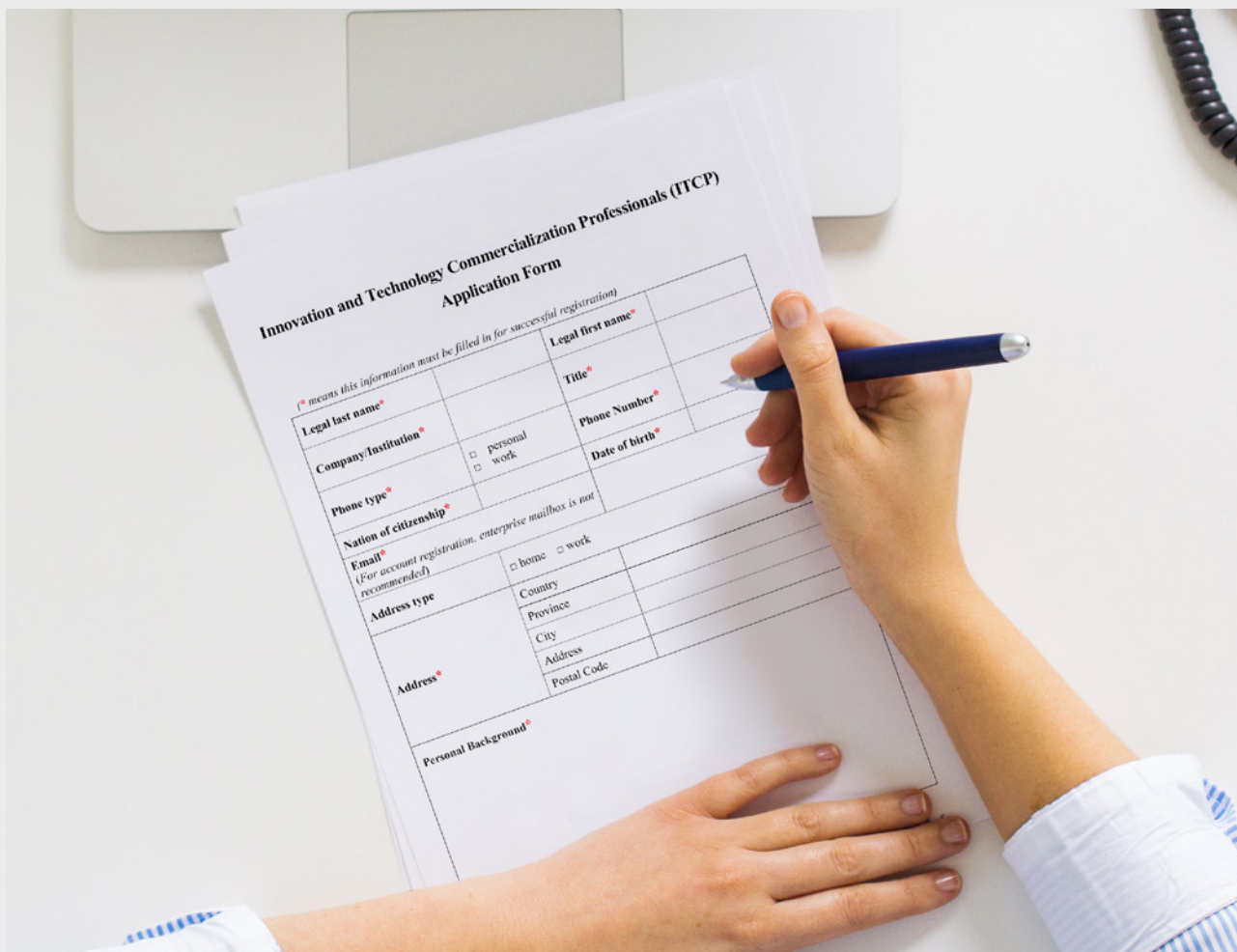
WeCom Account

ITTN
International Exchange
News
Innovation Communication

Multi-area eXchange
Strategy Research
Talent Training
Knowledge System

International Innovation Project SHOW
Industrial Investment
Institution Cooperation
Introduction and Implementation

If you have any questions or would like more information about ITCP course and our cooperation programme, please contact our Advisors at
email: huning@ittn.com.cn
tel: +86 15801118942
wechat id: medusa1207