

MIT Center for Real Estate

Founded in 1984, the [MIT Center for Real Estate \(MIT/CRE\)](#) is moving through its third decade strong and reenergized. The mission of MIT/CRE is to serve as a global forum and network for intelligent discussion around issues relating to international real estate development, investment, and finance. The Center for Real Estate aspires to be the global leader in research, contributing to the mission of the School of Architecture and Planning by studying spatial issues related to economics, finance, management, business, product design, innovation, marketing, customer and user metrics, market trends, and entrepreneurship in real estate development and the built environment. Additionally, CRE continues to grow a network of global thought leaders and enlightened entrepreneurs shaping the future of the industry, capital markets, and the built environment.

CRE students obtain an education that prepares them to become future leaders of the industry. Students enter the industry from our program as visionaries who reinvent the built environment and its social, economic, and environmental footprints for years to come. Intellectual tools developed here have become common staples in real estate valuation, investment, and development. Real estate economics—as a business and practically-oriented academic discipline—was developed at MIT. CRE publications and books are widely used and consulted by students, professionals, and global practitioners. The intention of the Center for Real Estate is to continually improve what we do and how we do it.

Faculty, Staff, and Visiting Scholars

R. Kelly Cameron is the career development officer at CRE. He is responsible for all of the strategic and operational requirements of providing career-related services and resources to the center's graduate students.

Shihe Fu is a Fulbright Scholar from Southwestern University of Finance and Economics in China, where he is a professor of urban and real estate economics. Fu received his doctoral degree in economics from Boston College in 2005. His current research interests lie in housing markets, labor markets, and the environmental issues in urban China. His primary research at CRE is focused on determining if Asian immigrants have gentrified the US urban housing markets.

Wei Lin is a postdoctoral associate working with Professor Albert Saiz on improving statistical methods for empirical research in urban and real estate economics. She is an econometrician who is interested in devising econometric strategies for applied microeconomic research questions. Wei received her PhD in economics from Michigan State University in 2016.

Robert (Rob) Lovett is a research affiliate working closely with R. Kelly Cameron on CRE's Employer-in-Residence program. In addition to serving as a medium for recruitment through international partnerships with companies like Investbridge Capital, the program provides global access to high-quality experiential learning opportunities to both foreign and domestic students during MIT's Independent Activities Period (IAP).

Multimedia Specialist Paige Mazurek is part of the case study team and is responsible for producing, editing, and serving as the creative lead for integrating video and other multimedia elements into CRE's case study platform. As an integral team member, she collaborates with the Department of Urban Studies and Planning and the Samuel Tak Lee Real Estate Entrepreneurship Lab (STL), as well as with faculty and staff from across the Institute.

Jeff Soyk is the Samuel Tak Lee Case Study Initiative creative director, helping to lead the case study team's creative vision to ensure quality, innovative stories, and educational experiences for students and professors. He ensures the user experience design and storytelling for each case, setting the tone for this educational product.

Fan Yang is a PhD student from Dalian University of Technology and a visiting PhD student at MIT majoring in architecture and urban planning. His research focuses mainly on city space regeneration, urban planning evaluation, and sustainable development of real estate and global urbanization.

Naming and Endowment

Last year, the Center for Real Estate received a significant gift of \$250,000 annually over three years from Real Capital Analytics to support Professor David Geltner's research in the area of price indices. Geltner's [Price Dynamics Platform](#) serves at the intersection between academics and real estate. This research utilizes the newest data combined with interdisciplinary econometric techniques from many fields, including navigation, meteorology, and health care.

CRE identified student fellowships as a key initiative. One of the center's partner firms, Prologis, funded a fellowship for students with a specific interest in industrial real estate and logistics industries. This fellowship was first offered in academic year 2016 in the amount of \$50,000. Prologis is offering this fellowship again in AY2018.

Masters In Real Estate Development Degree Program

Marketing and Student Recruitment

The center continues to strengthen the MIT/CRE brand and increase the visibility of the Industry Partners Program, Master of Science in Real Estate Development (MSRED) program and the Professional Education Certificate Program. CRE hosted an open house during the summer with 29 potential applicants attending in person. This summer session was created in addition to the annual fall information session, which will be both live streamed as well as attended in person.

Master of Science in Real Estate Development

MIT's Master of Science in Real Estate Development is the most concentrated science-based graduate degree in real estate available. Launched in 1983, the MSRED is the first degree of its kind, fulfilling a need for real estate specific education beyond the scope of the traditional MBA.

Enrollment

Twenty-five students matriculated in the fall of 2017, including five dual degree students from the Department of Urban Studies and Planning (DUSP.) The Class of 2018's profile consisted of nine women and sixteen men. Of these, 10 are international students and 15 are domestic students. Ten students are women and/or from an underrepresented minority group.

In March 2018, the 34th MSRED program class was admitted. The applicant pool increased 19% from FY2017 for a total of 134 applicants. This increase is likely due to increased marketing initiatives, community outreach, and key enhancements to our admissions process, recruitment, and requirements, for example, an extended open house event, a summer information session, and a portfolio option as part of the application. Beginning in the admissions cycle for AY2019, the MSRED program implemented a Young Leaders Program, intended for exceptional applicants with three years or fewer of work experience in the real estate industry.

Connecting Students to Industry

The Center for Real Estate, with its more than thousand-member community of alumni professionals in real estate, has multiple opportunities for engagement between students and industry professionals. As an integrative practice, CRE welcomes the professional community to campus for special presentations, to serve as guest lecturers, and in panel discussions. Through our experiential learning model and professional networking sessions, students gain a competitive advantage and valuable insight into career building opportunities.

Experiential Learning

Professional learning opportunities and placement assistance is available during the independent activities period and summer recess. CRE has worked with students to secure learning opportunities with major corporations and center partners throughout the world. A partial list of industry partners includes Investbridge Capital, Hines, Skanska, MIT Investment Management Company, The Davis Companies, Carr Properties, Campanelli, Conservatorio, Prologis, Related Group, JLL, Boston Properties, Terranum, LStar Ventures, and Taurus Investments.

Employer-in-Residence

Building upon an existing and vibrant industry partner system, the Employer-in-Residence program was created to expose students to business leaders and professionals. It is an increasingly popular practice used by colleges and universities to increase employer presence on campus. Our program features the following:

- Project-based learning opportunities involving students
- Knowledge from industry experts and data support specialists who provide industry relevant information for thesis topics
- A platform for recruiting MSRED students for winter externships, summer internships, and fulltime employment opportunities

Professional Networking

CRE bridges theoretical concepts with industry practices by inviting professionals to visit the campus to provide interactive presentations and networking opportunities. The goal is to provide degree candidates and students in the professional education program with career development resources and opportunities to increase their competitive advantage. A sampling of professional networking opportunities offered by CRE include:

- Thought Leader Speaker Series
- Annual World Real Estate Forum
- Annual career conference with Harvard Graduate School of Design
- Access to CRE alumni through the Alumni Association of the Center for Real Estate (AACRE)
- Sponsored learning activities through the Urban Land Institute (ULI), Building Owners and Management Associates, and CoreNet Global; fellowships sponsored by the National Association of Real Estate Investment Managers

Career Exposure

Exposure to industry and professionals are important components of the CRE student experience. Through a collaborative effort with Harvard Graduate School of Design, students from both institutions attend an annual daylong career conference that exposes students to industry professionals across the real estate spectrum.

Professional Mentoring

For the first time, CRE and AACRE are collaborating to launch a mentoring program between real estate industry professionals—MSRED alums and incoming students to the MSRED program.

Online Job Board

With the assistance of GradLeaders, an online technology development company, CRE has launched an independent job board specific to MSRED students. The job board will serve as a centralized point of reference for posting externships during IAP, summer internships, and fulltime job opportunities. Additionally, the interactive platform will allow students to schedule interviews with visiting employers, as well as respond to CRE-sponsored activities.

Diversity Initiatives

CRE is strategizing its approaches to best engage affinity groups, associations, and organizations connected to the real estate industry. Activities include attending annual conferences and summits and co-sponsoring events.

Graduate Student Trips

MIT CREATE (Cultural, Research, Entrepreneurship, and Technology Exchange), a lab advancing methods and solutions that enhance urban development for informal and non-standard economies, has continued to strengthen the academic offerings at MIT related to urban informality. CREATE has collaborated with leading organizations and individuals around the world to advance knowledge and practice around urban policies and designs, it has shared existing research at conferences worldwide, and it has established MIT's first Urban Informality Interest Group—a collaboration between MIT's Center for Real Estate and the University of Colorado Boulder. In addition, MIT CREATE has moved to be part of design—the MIT School of Architecture and Planning's new hub for innovation and entrepreneurship. In May, Kate Mytty (MCP '15, MIT CREATE co-founder and visiting lecturer) received a Laya Wiesner Community Award that celebrates “a member or friend of the MIT community for conspicuously effective service that reflects Laya's concerns for enhancing life at the Institute and in the world at large.”

In Spring 2018, we facilitated our second course; this year's title was “Prototyping for Informal Urban Markets: Methodologies for Understanding and Responding to Livelihood Generation in Public Spaces,” which introduced students to urban informal economies, data-collection methodologies, and responsive-design prototyping for community engagement. In spring 2019, CREATE will teach a subject on the impacts of non-standard work and urban informality on cities and urban residents, and explore the impacts of Uber to street vending and city form, function, and technology.

During IAP and summer 2018, five students (four graduate and one undergraduate) joined MIT CREATE to pursue action-based research with our collaborating organization Asiye eTafuleni in Durban, South Africa. Thematically, we explored the design of resilient market sites for street-based commercial cooks in Durban that contributed to local policy and ongoing design negotiations, and working mothers' experiences caring for their infants at urban markets. We also held a workshop with Asiye eTafuleni Durban University of Technology Urban Futures Center, and eThekweni Municipality Municipal Institute of Learning to explore how cities can evolve to support more equitable urban economies. The workshop was supported by the MIT International Policy Lab. In addition, we collaborated with MIT D-Lab to redesign a commercial cookstove for a market site where 60 vendors cook over 600 ears of corn daily.

In addition, three students pursued independent studies through CREATE. DUSP PhD student Rida Qadri conducted research on the Haymarket in Boston, exploring the value of temporary retail in our asset-light economy. Josh Morrison MCP '19 developed a workshop strategy for co-designing an upcoming public space and market site with residents of an informal settlement in Cape Town. Grace Chuan '21 categorized the long tail of small-scale commercial spaces in Boston to develop a working draft of a typology to speak about different types of commercial spaces.

MIT CREATE collaborated on two conference panels. At the University of Cape Town's African Center for Cities' International Urban Conference we chaired a panel on the role of research and planning in the development of more inclusive and vibrant markets in African cities. Tiffany Ferguson MCP '18 moderated the panel. At the MIT World Real Estate Forum we chaired a panel on bottom-up real estate using street level data

for development decision making. The panel featured Professor Dennis Frenchman, Lecturer John Kennedy, Assistant Professor Jota Samper from the University of Colorado-Boulder, Rida Qadri, and Kate Mytty.

Thesis Awards

Each year, the Center for Real Estate presents three awards: two to students with outstanding theses, and one to the student who best exemplifies the values and mission of the center. A panel of faculty and staff review and select the submissions and present the awards during graduation dinner.

The Govan Entrepreneurship Award is presented to an MSRED student whose thesis exemplifies a unique, entrepreneurial idea that embodies the entrepreneurial success and legacy of CRE alumni. The award is made possible through the generous sponsorship of MSRED alumnus Craig Govan '94. The 2018 award went to Dietmar Weissmann '18 for his thesis "Innovative Mobility Solutions Disrupting Conventional Investment Paradigms in Real Estate."

The Center for Real Estate Thesis Excellence Award is presented to the student who has prepared a thesis recognized as achieving a level of excellence above and beyond the high standards of MIT. Sponsored by alumnus David Deutsch '94, creativity and originality are considered as well as analysis, execution, and presentation of the final product. This year's award was presented to Weijia Song '18 for her theses: "The Optimal Mix: Deploying Portfolio Theory on Real Estate Asset Returns in Mixed-Use Development." The award also went to Stephen Gallagher '18 for his thesis "Capital Expenditures in Industrial Properties."

The Exemplar Award acknowledges a member of the MSRED class who has great potential for industry leadership. Key qualities considered by the award committee are authenticity, integrity, academic focus, leadership, ethics, perseverance, positive attitude, responsibility, commitment to the center and its classmates, vision, and a strong team attitude. MSRED students, faculty, and staff are invited to nominate students for this award. In 2018, the award was presented to Teri Ford '18.

Professional Education Certificate Program

Together with MIT Professional Education, CRE had another successful program year with 63 certificate applicants and 45 participants completing their master certificate in Real Estate Development and Finance. Twenty-one countries were represented in this year's certificate program.

Case Study Initiative

Over the last fiscal year, the Samuel Tak Lee Real Estate Entrepreneurship Lab's Case Study Initiative has made continued progress in developing a groundbreaking digital pedagogical tool. The team has created a custom software platform and a library of case studies for graduate built environment education focused on positive social impact.

The Case Study method is a proven pedagogical approach to teaching in many practice-based disciplines such as business, public policy, and law. Undergraduate and graduate programs in urban planning, real estate, urban policy, and related fields rely heavily on site-specific examples, even though case-based learning has not yet been integrated into these fields' curriculum. MIT Case Studies are built to help students develop an emotional connection to the site and better understand the complexities facing urban decision-makers around the world.

Using OpenEdx as a base, the team has been testing a customized software platform that allows students to view and professors to view, edit, rearrange, and add content to case studies. The cases are custom-created based on MIT faculty's learning objectives by a team of multimedia designers, filmmakers, writers, and urban planning experts. The [case studies](#) merge video, text, interactive media, data, and assessments to form an immersive and engaging story. The case study initiative is led by Danya Sherman, Jeff Soyk,) and Paige Mazurek under the guidance of Professors Albert Saiz (CRE director) and Eran Ben-Joseph (head of the Department of Urban Studies and Planning).

Center for Real Estate Alumni Association

There are more than a thousand graduates of the MSRED program. Approximately 20% live outside of the United States in over 14 countries. There are significant concentrations of alumni in New England, New York City, Boston, Washington, DC, San Francisco, Toronto, Beijing, Seoul, Tokyo, and Hong Kong. The alumni group is an all-volunteer organization.

Faculty, Lecturer, and Research Staff Updates

Professor David Geltner's book, co-authored with Richard de Neufville, was published in 2018 by Wiley Blackwell: *Flexibility and Real Estate Valuation Under Uncertainty: A Practical Guide for Developers*.

Professor Dennis Frenchman is a principal investigator (along with Andrea Chegut) of the Real Estate for Entrepreneurship project, as well as principal investigator (with Geltner and Chegut) of the Real Estate Innovation Lab.

Professor Emeritus William Wheaton created six blog entries (from January to June 2018) for the CRE website. In February 2018 he discussed the impact of the Tax Reform Act on housing on NPR, and he talked about the affordability of housing in the US on CNBC in March.

Professor Wheaton presented a lecture, "Urban Structure and Changing Transportation Technology," in July 2017 at the Advanced Management Development Program in Real Estate at the Harvard Graduate School of Design, and in September 2017 he gave a talk at EP Real Estate in London: "Revolutions in Technology and Implications for the Future of Cities." He spoke at the Coldwell Banker Real Estate annual conference in Washington, DC, on the evolution of the US retail sector, and at MIT Sloan in October on the economic spatial structure of cities. In June 2018 he taught the CRE professional development course "Understanding Real Estate Markets." Professor Wheaton authored a paper, "Robots, Automation and the demand for Industrial Space," for the MIT Department of Economics in June 2018.

Lecturer John Kennedy conducted research in South Africa on how the built environment affects entrepreneurship in the informal economy. CREATE is in the process of researching the traits and characteristics of formal and informal economic ventures. This research demonstrates that the traits and characteristic of ventures are similar but the challenges that entrepreneurs face are very different. One outcome is to show that the informal economy has many valuable entrepreneurs and built-environment professionals can encourage economic development through supporting them.

Senior Lecturer Walter Touros presented the seminar “History of Commercial Real Estate Derivatives” at the University of Zurich, Department of Banking and Finance in October 2017. He also lectured at Cornell University in November 2017 on “Second Mortgages: Valuation and Implications for the Performance of Structured Financial Products.” In June 2018 he taught the professional education course “Real Estate Finance Fundamentals.”

Lecturer Yanni Tsipis has been a keynote speaker, moderator, or panelist in numerous industry events hosted by groups such as the Urban Land Institute, NAIOP (Commercial Real Estate Development Association), and other industry organizations.

Researcher Rui Du presented at the MIT Media Lab, at Columbia University, and at the annual North American Meetings of the Regional Science Association International in San Antonio, TX. He also attended numerous conferences around the US and abroad.

Conclusion

The CRE builds bridges between the challenges and opportunities of technology and the environment as they relate to real estate development and investments. Solutions to current economic, social, and environmental challenges will come from the real estate industry and its innovative entrepreneurs.

Albert Saiz

Director

Daniel Rose Associate Professor of Urban Economics and Real Estate