## Korea Institute of Construction Engineering and Management

# 한국건설관리학회

The leading institute for the construction industry and technology innovation

www.kicem.or.kr

## Introduction to the Korea Institute of Construction Engineering and Management

The Korea Institute of Construction Engineering and Management (KICEM) was launched in December 1999 as the premiere professional institute for construction management in Korea. KICEM has been actively involved in the academic, technical, and practical development of the field as well as spearheading efforts to improve and advance related policies and regulations.

The construction management domain covers a wide and diverse field. Our overriding goal is to improve the construction industry through the successful implementation of construction management approaches that enable efficient collaboration between project participants. We strive to improve the economics and productivity of the industry by identifying new technologies and promoting rigorously researched, practical management approaches.

From an industry and market perspective, construction management encompasses not only the traditional fields of architecture and civil engineering but also areas involving the design, engineering, and construction of industrial, environmental, and energy plants. Construction management is a vital function that must be executed professionally by all relevant entities throughout the project lifecycle. The range of technologies that bolster success in construction management is vast and continuously evolving. Historically, technologies related to construction management were associated with traditional activities such as process management, cost control, quality assurance, and safety measures. However, recent advancements have seen the incorporation of information technology, data analysis, sensing technology, networking, virtual reality, Building Information Modeling (BIM), and automation to support these activities. Furthermore, the integration of engineering technologies with knowledge from fields such as economics, management, law, administration, sociology, and psychology is becoming an essential element of modern construction management.

Therefore, construction management stands as a vital concept and practice, indispensable to all types of construction projects and every participant involved. Consequently, our society has been at the forefront of cultivating construction management, functioning as a scholarly body fostering theoretical and technological advancements. We also serve as an industry collaborator and a thought leader within the broader sector. Moving forward, we remain committed to catalyzing even greater strides in this field.

### Construction Management Knowledge Area

- Industry & Market Analysis Construction Law & Policy Real Estate Management • Scope Management Contract & Claim Management • Time Management • Quality Management Safety Management Material Management Labor Management
- Productivity Management
- Operation & Maintenance
- IT & Information · Knowledge Management
- BIM (Digital Twin, Metaverse, etc.): Building Information Modeling including
- Digital Twin, Metaverse, et
- Construction Automation including Robotics, Sensing Tech., etc.
- Construction Methods
- Construction Materials
- Construction Equipment
- Energy & Green Construction
- Professional Projection Management

## **KICEM** activities

Our society's undertakings consist mostly of academic pursuits, acting primarily as an educational body. From this core, we engage in diverse educational and research & development activities, alongside consulting services. We strive to provide and propagate a wide array of practical information and technologies. As thought leaders, we also engage in shaping systems and policies for industrial development, among other initiatives.

#### Academic activities

Since its inception, our society has been committed to establishing and disseminating a systematic knowledge base within the field of construction management. Our key activities include the publication of academic journals such as 'Construction Management' and the 'Korean Journal of Construction Engineering and Management (KJCEM),' as well as the hosting of regular academic conferences and nation-wide university student conferences.

Our bimonthly journal 'Construction Management' features diverse content including the latest news in the construction industry, the introduction and trend analysis of new technologies and construction policies, as well as updates from various academic societies. In the KClindexed KJCEM journal, more than 70 high quality papers are published each year. During our regular academic conferences, 200 to 250 papers are annually presented by both established and emerging researchers, discussing practical and timely issues of interest. We also co-host the International Conference on Construction Engineering and Project Management (ICCEPM) alongside developed countries proficient in construction management, such as the United States, Singapore, Hong Kong, Japan, and China. Additionally, we contribute to the field through the publication of specialized books.

The ICCEPM, initiated in 2005 under our society's aegis, takes place biennially and has evolved into a prestigious international academic conference, attracting hundreds of world-class scholars and researchers from 15 to 20 countries.

Furthermore, our society endeavours to establish and disseminate knowledge by publishing related books, translations, and informational magazines on various topics within the field of construction management, which has been a largely untapped area for professional literature.



#### Education, R&D, and consulting activities

At the time of our society's inception, construction management was a relatively unknown field within the domestic construction industry. Since then, the transformative power of education has been instrumental in shaping the field into what it is today, with our particular society at the helm.

Our membership consists of educators proficient in teaching cutting-edge technologies across various specialized fields. To date, we have offered numerous educational programs, including the K-CEM Leaders Membership course, Construction management professional (CMP) training course, internationally accredited Value Engineering (VE) specialist course, and a variety of expert training programs within the construction sector.

Additionally, our society, comprising expert members such as professors and researchers, has been actively conducting a wide range of research and development projects as well as providing consultation services tailored to the broader construction industry or those specialized in construction management. For instance, we've been involved in research that forms the foundation for government institution and policy development, like bidding and tendering systems. We've also engaged in research that can influence the entire industry, such as the analysis of domestic and foreign markets and the evaluation of overseas regulations, as well as the study of methods to enhance a company's core capabilities.

Simultaneously, our society is establishing a framework that can more proactively cater to industry needs in education, research and development, and consulting by systematically defining the knowledge system in the field of construction management and categorizing experts in each domain.

Thus, for the activities mentioned above, we aim to deviate from the conventional approach where consumers choose and request services while being supervised by the academic society. Instead, we aim to create educational programs tailored to the needs of our members and their companies, providing research and consulting content that offers a more personalized service.

#### Education and Training programs offered by KICEM

- K-CEM leaders membership
- Risk training workshop
- Next-generation construction leader academy
  Construction work claims and dispute practical
- training

- One-Day VE academy for undergraduate and
- graduate students majoring in construction
- CM technology proposal preparation strategy
   seminar in preparation for service evaluation system
- Risk expert basic training
- Special training course for understanding the construction industry

- Project Management for offshore projects
- Advanced EPC project management
- Construction management professional (CMP)
   training
- One-day VE training (for society members/CVS)VE promotion cases of government public
- institutions and special VE trainingSAVE accredited VE expert training (Module 1)
- Engineering practical training
- Construction property expert training
- CEM Academy advanced construction management

# Propagation and Dissemination of Information Technology Related to Construction Management

The advent of the Fourth Industrial Revolution and smart technologies, along with rapidly changing global circumstances and industry dynamics, are profoundly influencing our construction industry. Our society is at the forefront of quickly assimilating and disseminating these novel technologies, knowledge, and various forms of information.

Much of this work is conducted through academic journals, papers, and educational programs, with our professional committees playing a central role. These committees comprise leading experts in the core areas of construction management, including contract management, process management, project cost management, Value Engineering (VE), risk management, safety and disaster management, quality management, environmental and energy management, construction IT, smart construction, and plant construction.

These committees diligently work to disseminate pertinent information by continuously identifying current industry issues and understanding the kind of information needed. As a result, each committee organizes various seminars, discussions, forums, workshops, and invited lectures from time to time. Participation is open not only to society members but also to construction professionals interested in the respective topics.

These events take place on average 60 to 70 times a year. The schedule and content for all events can be found on our society's website.

#### Standing committee

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• Planning and Operation Committe	• Educational Publishing Co	mmittee • International Exe	hange Committee •	Thesis Editorial Committee
External Relations Committee	<ul> <li>University Development a Public Relations Committee</li> </ul>		• • •	Women's Committee
• R&D Committee	<ul> <li>Young Researcher Commit</li> </ul>	• Institutional Poli	cy Committee •	Sustainable Development Committee
Student Council	<ul> <li>Academic Exchange Comr</li> </ul>	nittee • Journal Publicati	on Committee	
Expert committee				
Contract Management Committee	• Process Management Committee	Project Cost Committee	VE Committee	Risk Management Committee
<ul> <li>Safety and Disaster Management Committee</li> </ul>	Quality Management Committee	Environment/Energy Committee	Fair Cooperation Commi	ittee • Wealth Management Committee

#### **Special committee**

Construction IT Committee

Society Governance TF Committee
 Owner Cooperation Committee
 CM Industry Advancement Committee
 Comprehensive Project Management Committee

Smart Construction Committee
 Construction AI Committee

#### **Opinion leader role for industrial development**

While our society operates as an academic organization, it stands out for its strong collaboration with the industry. Consequently, one of our key roles involves identifying crucial issues not only within the realm of construction management but also within the broader construction industry, and proposing development trajectories by soliciting input from both industry and academia.

These significant issues encompass all facets of industrial development, such as government systems and policies, industry conditions and challenges, technology

introduction and utilization, global market trends and domestic circumstances, and the concerns of our members and their companies. We always welcome suggestions in addressing these matters at our meetings.

Plant Construction Committee

A balanced perspective, specialized expertise, and broad viewpoint are vital when discussing and providing feedback on these subjects. In this regard, our society boasts a cohort of experts with superior abilities compared to any other institution in Korea and is committed to fostering close collaboration with external specialist organizations.



## **Membership options**

General Member	An individual who has graduated from a four-year university or has been acknowledged to possess equivalent qualifications, and agrees with the society's mission and objectives.			
Student Member	vidual currently enrolled in an undergraduate program who aligns with the society's mission and res. After admission, should their qualifications meet the standards required for general members, they upgraded to general members in accordance with the society's rules. Please note, student members do sess voting rights within the society.			
Honorary Member	An individual who has made exceptional contributions to the society and has been appointed by a resolution of the Board of Directors, in accordance with the society's regulations. Honorary members enjoy all member rights and are exempt from entrance fees and membership dues.			
Group Members	Corporations or organizations that agree with the society's mission and objectives, and are actively involved in the construction industry.			
Materials member	University or corporate libraries that wish to subscribe regularly to academic journals, periodicals, and other publications.			

\* For membership fees and related documents, please contact the society's secretariat.

### Korea Institute of Construction Engineering and Management

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