



**AIT**  
Asian Institute of Technology

**INTEGRATED  
INNOVATIVE  
SOLUTIONS**

 **AIT Solutions**





## About AIT

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The Asian Institute of Technology is an international postgraduate institution, providing engineering, environment, and management education and research, focusing on Sustainability and Social Impact issues.

Founded in 1959, AIT offers students the opportunity to study at an institution in Asia which possesses a global reputation. AIT stresses its international connections, its injection of innovation into research and teaching, its engagement with public and private sectors, and its nurturing of entrepreneurship.

Apart from academic fields of study in three AIT Schools, AIT has outreach centers as connectors for AIT's education and research outreach with industry and society. AIT Solutions is one of the outreach centers through which AIT connects with industry and the society, focusing on innovative consulting/solutions in engineering, technology, infrastructure, and knowledge transfer activities.

## About AITS

Established as an outreach center by AIT in 2010, AIT Solutions continues to connect with industry and community partners to spread AIT's expertise in engineering, technology, infrastructure, and knowledge transfer activities.

AITS core strength lies in structural engineering and software development domain. Based on these domains, AITS works across these two fields as well as allied fields and develops solutions for industry and government partners. To further connect with engineering and construction industry, CSi BIM Lab was established at AITS for the advancement of the application of BIM in various aspects of building design, construction, management, and operation.

Besides its core strength, AITS collaborates with industry, multi-lateral agencies (ADB, UN, etc.) to develop and provide solutions in allied areas of geotechnical engineering, building technologies, and technical project audits.

Today, AITS is expanding its collaboration with existing partners and exploring new collaborators to co-develop solutions for the industry and for the community.

## Key Services

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### Structural Performance-based Seismic Design & Design Review

With its in-house team, AITS has conducted performance-based seismic design of over 120 tall buildings located in high seismic zone around Asia. For our partners and clients in these projects, AITS conducts highly detailed earthquake simulations to check and improve the structural performance as well as cost-effectiveness.

Based on the needs of our partners, AITS also conducts code-based structural design review of buildings and other structures with the focus on reviewing the design and conformance to the codes.

### Wind Tunnel Testing

AITS in-house team conducts wind tunnel testing to enhance the reliability and cost effectiveness of the structural design thereby ensuring occupant comfort, façade design optimization, and improving pedestrian comfort.

### Structural Health Monitoring

This advanced analysis technique, researched and developed by AITS in-house team, monitors the structural health of instrumented buildings/ structures. The outcomes of this analysis can be relayed to building managers, developers, engineers, and occupants to confirm the safety and reliability of the structure as well as enabling damage detection, especially in a post-earthquake scenario.

### Software Development

AITS in-house team has collaborated with several leading industry partners to research and develop software solutions in the field of structural engineering, mobile computing, knowledge products, construction monitoring & management, travel & leisure, and smart living. AITS develops customized desktop, web, mobile and cloud-based applications to fulfill the needs of partners and clients.

## Key Initiatives

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### CSI BIM Lab

Computers and Structures, Inc. (CSI), the pioneering leader in software tools for structural and earthquake engineering, partnered with AIT Solutions to establish CSI BIM Lab at AIT for the advancement of the application of BIM in various aspects of building design, construction, management and operation. BIM Lab team carries out the research and development of platform and tools to read and check the different data format of BIM models as well as development of BIM models from scanned data.

### Professional Master in Structural Design of Tall Buildings

Civil and Infrastructure Engineering (CIE) Department, School of Engineering and Technology and AITS collaborated to develop and offer a world-class blended learning program for the structural engineers.



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