

※ Special Issue will be published twice in 2018 on different topics. (February and April).

### KSCE J. Civ. Eng.

The KSCE Journal of Civil Engineering is a technical journal published bimonthly by the Korean Society of Civil Engineers (KSCE). The journal publishes original papers within the broad field of civil engineering which include, but are not limited to, the following:

- Coastal and Harbor Engineering
- Construction Management
- Environmental Engineering
- Geotechnical Engineering
- Highway Engineering
- Hydraulic Engineering
- Information Technology
- Nuclear Power Engineering
- Railroad Engineering
- Structural Engineering
- Surveying and Geo-Spatial Engineering
- Transportation Engineering
- Tunnel Engineering
- Water Resources and Hydrologic Engineering

The Journal is indexed in SCOPUS and Science Citation Index Expanded(SCIE).

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## 2018 February Special Issue Call for Papers

**Paper Submission Deadline: September 15, 2017  
(EXTENDED)**

The *KSCE Journal of Civil Engineering* invites papers for 2018 February Special Issue on a topic related to **Probabilistic learning for decision-making on civil infrastructures under uncertainties**. Special issues are designed to provide a platform and give the opportunity to summarize the state-of-the-art on a specific theme, share new perspectives, and initiate discussion on the latest theoretical research.

This open call invites researchers to submit papers for a Special Issue to be published in **February, 2018**.

### Aim and Scope

#### Probabilistic learning for decision-making on civil infrastructures under uncertainties

Civil infrastructures are subject to risks related to various types of uncertainties in structural deterioration, natural hazards such as earthquakes and winds, and man-made disasters. These uncertainties may change significantly over the life time of the infrastructures, as evidenced in climate change impacts. Therefore, it is crucial to understand the impacts of these uncertainties based on data and information from various sources such as sensors, data repositories and expert opinions. The main purpose of this "probabilistic learning" is to facilitate risk-based optimal decision-making related to planning, monitoring, maintenance and disaster response. Recently, significant research efforts have been made to develop advanced methods for probabilistic learning and optimal decision-making. In conjunction with the fast development of sensor and information technologies, probabilistic learning is expected to transform the way we are understanding and monitoring the risk of civil infrastructures and establish a powerful and adaptive platform for risk-based decision-making.

This special issue aims at identifying the latest methodological advances and transformative application examples in the topic area of probabilistic learning for optimal decision-making on civil infrastructures under uncertain environments. This aim will be achieved by acquiring contributions from eminent researchers in this topic area from academia, laboratories, and industry. These contributions are expected to establish today's technological benchmarks from which the next generation of probabilistic learning in civil engineering will evolve.

### Guest Editor Team for 2018 February Special Issue

#### Prof. Junho Song Principal Guest Editor

Dept. of Civil and Environmental Engineering, Seoul National University, Seoul, Korea

#### Prof. Daniel Straub

Engineering Risk Analysis Group, Technische Universität München, München, Germany

#### Prof. Matteo Pozzi

Dept. of Civil and Environmental Engineering, Carnegie Mellon University, Pittsburgh, PA, USA

- Full papers should be submitted electronically at [www.editorialmanager.com/ksce](http://www.editorialmanager.com/ksce) by August 31, 2017.
- All papers should be submitted under respect of Manuscript Submission Guidelines of KSCE J. Civ. Eng. Please refer to the "Instructions for Authors" of the KSCE Journal of Civil Engineering at the following web link: <http://www.springer.com/12205>
- The article type for 2018 Special Issue submissions should be selected as '2018 SI : Probabilistic learning for decision-making on civil infrastructures under uncertainties'

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## 2018 April Special Issue Call for Papers

**Paper Submission Deadline: October 31, 2017**

The *KSCE Journal of Civil Engineering* invites papers for 2018 April Special Issue on a topic related to **Mechanistic Evaluation of Asphalt Paving Materials and Structures**. Special issues are designed to provide a platform and give the opportunity to summarize the state-of-the-art on a specific theme, share new perspectives, and initiate discussion on the latest theoretical research.

This open call invites researchers to submit papers for a Special Issue to be published in **April, 2018**.

### Aim and Scope

#### Mechanistic Evaluation of Asphalt Paving Materials and Structures

Road transportation is a basic necessity for commerce, travel, and daily life. In most countries, the asphalt pavement network is one of the largest civil infrastructure investments; however, the conditions of these pavement networks require significant and continued attention. In addition, the materials and technologies used for asphalt paving have become increasingly complex and now include warm mix asphalts, reclaimed asphalt pavement, and recycled asphalt shingles, to name a few. Despite the level of investment and technological advances in materials and pavement designs, the sometimes lack of satisfactory performance outcomes has encouraged the asphalt paving industry and highway agencies to shift from empirically-based specifications and design methods to more mechanistic ones. The benefits of mechanistic design and analysis methods compared to empirically-based methods include that they provide: 1) a better understanding of the mechanisms that determine the performance of asphalt materials and pavements, 2) more reliable and accurate test methods and models, 3) the ability to design better performing materials, 4) the ability to develop customized materials and structures to meet specific project conditions, 5) improved pavement network performance, and 6) cost savings due to the longer life of pavements and less maintenance. The purpose of this special issue is to present a compilation of state-of-the-art research into the mechanistic modeling of asphalt materials and pavements. This issue includes articles that introduce and discuss advanced pavement technologies that have been developed in different countries.

### Guest Editor Team for 2018 April Special Issue

#### Prof. Youngsoo Richard Kim Principal Guest Editor

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#### Prof. Hainian Wang

School of Highway, Chang'an University, South Erhuan Middle Section, Xi'an, China

- ♦ Full papers should be submitted electronically at [www.editorialmanager.com/ksce](http://www.editorialmanager.com/ksce) by October 31, 2017.
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