

2026 10th International Conference on RELIABILITY ENGINEERING

Hangzhou, China July 19-21, 2026

Special Session 19

Integrated Technology of Intelligent Diagnosis, Fault Simulation & Injection, and Testability Design

Goal >>>>

This session focuses on Integrated Technology of Intelligent Diagnosis, Fault Simulation & Injection, and Testability Design. It targets abrupt, gradual, and intermittent faults in electronic, electrical, electromechanical, and mechanical products. Core topics include condition monitoring, fault characterization mining, propagation mechanism modeling, embedded diagnosis, intelligent diagnosis, fault simulation and injection, health degradation assessment, and trend prediction. The session aims to advance the engineering implementation of Prognostics and Health Management (PHM) technologies, promote the integration of multidisciplinary theories with industrial practice, and provide theoretical and technical support for life-cycle reliability assurance, intelligent operation and maintenance, and system resilience improvement of complex equipment. We welcome original research, technological advances, and engineering applications in related fields to support a high-quality academic exchange platform for reliability engineering at ICRE 2026.

Topics >>>>

Topics of interest include, but are not limited to:

- Testability
Demonstration, design analysis, test and evaluation of testability requirements, and new technologies and applications of BIT and embedded diagnosis.
- Application of PHM system
New technologies and applications of engineering-oriented PHM hardware and software platform, standards and specifications, and health management system.
- Fault modeling, simulation and injection
New technologies and applications of mechanism modeling, propagation modeling, simulation and fault injection for abrupt faults, gradual faults and intermittent faults in electronic, electrical, electromechanical and mechanical products.
- Intelligent diagnosis and prognostics of faults
New technologies and applications of intelligent diagnosis, condition monitoring, health degradation assessment and trend prediction for abrupt, gradual and intermittent faults of electronic, electrical, electromechanical and mechanical products
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Chairs >>>>



Junyou Shi, Beihang University, China

Publication >>>>

We provide a good opportunity by presenting your updated research knowledge and also by publishing it in the conference proceedings. submitted paper will be peer reviewed by conference committees, and accepted papers will be included into conference proceedings which will be indexed by SCOPUS and Ei compendex.

Submission >>>>

1. Full paper (presentation and publication)
 - The paper must be written in English.
 - All submissions will undergo a peer-review process by the conference committee.
 - The paper should be at least FIVE pages including all figures, tables, and references.
 - The paper should be submitted as a PDF document in .pdf format.
 - submitted paper must be unpublished.
 - Accepted papers will be invited for oral presentation or poster presentation and will be included in the conference proceedings.
2. Abstract (presentation only)
 - Abstracts will be considered for presentation (oral/poster) only without publication.
 - The abstract must be written in English.
 - Abstracts should be no more than 300 words and clearly outline the title, purpose, methods, and outcomes of the research or practice being described.
 - All submissions will undergo a peer-review process by the conference committee.

* Welcome to submit the paper or abstract by Electronic submission system: <https://www.zmmeeting.org/submission/icre2026>
More details about submission, please visit at: <https://www.icre.org/sub.html>

Conference Program >>>>

July 19, 2026 | CONFERENCE + SHORT COURSE
July 20, 2026 | TECHNICAL EXCELLENCE & TRIBUTE
July 21, 2026 | INNOVATION & FUTURE OUTLOOK
July 12-25, 2026 | Young Scholar Symposium + 2026 Beihang International Summer School

Conference Venue >>>>

Conference Venue:
Hangzhou International Innovation Institute of Beihang University
Address:
No. 166, Shuanghongqiao Street, Pingyao Town, Yuhang District, Hangzhou City

Hangzhou, China

Hangzhou, a renowned Jiangnan city blending millennia of heritage and poetic scenery, boasts three world cultural heritage sites. West Lake ripples with romance; Liangzhu Ruins hold ancient wisdom; the Grand Canal carries folk vibes. Timeless Song Dynasty elegance meets trendy fun, and delicious local cuisine delights the taste buds. A perfect mix of classic and modern, it awaits visitors from all over the world.

Important Dates >>>>

Submission Deadline (Final Call): June 10, 2026
Notification Deadline: June 25, 2026
Camera-ready Date: June 30, 2026



Contact

conference secretary: Ms. Lesley
Email: icre_conf@outlook.com
web: <http://www.icre.org>

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特别专题 19

智能诊断、故障模拟注入与测试性设计一体化技术

专题目标 >>>>

本专题聚焦智能诊断、故障模拟注入与测试性设计一体化技术，面向电子产品、电气产品、机电产品与机械产品的突变故障、渐变故障及间歇故障，围绕状态监测、故障表征挖掘、传播机制建模、嵌入式诊断、智能诊断、故障模拟与注入、健康退化评估、趋势预测等核心内容展开。旨在推动测试性与健康管理（PHM）技术的工程化落地，促进多学科理论与装备运维实践深度融合，为复杂装备全生命周期可靠性保障、智能运维决策及系统韧性提升提供理论基础与技术支撑。本专题欢迎相关领域原创研究、技术进展与工程应用成果，助力 ICRE 2026 构建高质量可靠性工程学术交流平台。

专题主题 >>>>

征稿主题包括但不限于：

- 测试性

测试性要求论证、设计分析、试验、评估、BIT与嵌入式诊断新技术与应用。

- PHM体系应用

面向工程的PHM软硬件平台、标准规范、健康管理体系新技术与应用。

- 故障建模仿真与注入

面向电子产品、电气产品、机电产品与机械产品，针对突变故障、渐变故障及间歇故障的机理建模、传播建模、仿真、注入新技术与应用。

- 故障智能诊断与预测

面向电子产品、电气产品、机电产品与机械产品，针对突变故障、渐变故障及间歇故障的智能诊断、状态监测、健康退化评估、趋势预测等新技术与应用。

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专题主席 >>>>



石君友，北京航空航天大学，中国

会议出版 >>>>

录用文章将被收录至ICRE 2026会议论文集，由IEEE出版，并被EI Compendex 和 Scopus 检索。

投稿方式 >>>>

- 1). 上传文章到电子投稿系统: <https://www.zmeeting.org/submission/icre2026>
- 2). 或发送文章至会议邮箱: icre_conf@outlook.com

提示：

1. 全文投稿（含报告与出版）

- 稿件须以英文撰写。
- 所有投稿均由会议委员会进行同行评审。
- 稿件篇幅不少于 5 页，包含所有图表及参考文献。
- 稿件须以 PDF 格式提交。
- 投稿稿件须为未发表的原創成果。
- 录用稿件将受邀进行口头报告或海报展示，并收录至会议论文集。

2. 摘要投稿（仅作报告）

- 摘要仅用于申请报告资格（口头报告 / 海报展示），不纳入出版范围。
- 摘要须以英文撰写。
- 摘要字数不超过 300 词，须清晰阐明所涉研究或实践的标题、研究目的、研究方法及其研究成果。
- 所有投稿均由会议委员会进行同行评审。
- 详细信息请见——<https://icre.org/sub.html>

会议日程 >>>>

- 2026年7月19日- 签到注册
- 2026年7月20日- 开幕式+主旨报告+作者报告
- 2026年7月21日- 开幕式+主旨报告+作者报告
- 2026年7月12-25日- 青年学者论坛 + 2026北航国际暑期学校

会议地址 >>>>

杭州市北京航空航天大学国际创新研究院（北京航空航天大学国际创新学院）
地址：杭州市余杭区瓶窑镇双红桥街166号

中国杭州

杭州，一座融千年文脉与诗画风光的江南名城，三大世界文化遗产勾勒其独特魅力。西湖碧波漾诗意，良渚遗址藏远古智慧，大运河流淌南北烟火。宋韵风雅浸润红墙古社，新潮玩法解锁别样体验，鲜醇杭帮菜抚慰味蕾。古典与现代交织，漫步街巷皆是惊喜，正静待八方游客前来探寻。

重要日期 >>>>

投稿截止日期（最后一轮征稿）：2026年6月10日

审稿通知日期：2026年6月25日

注册截止日期：2026年6月30日



杭州市北京航空航天大学国际创新研究院
(北京航空航天大学国际创新学院)



哈尔滨工业大学
HARBIN INSTITUTE OF TECHNOLOGY

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