

5<sup>th</sup>

ICRQE2021

# International Conference on Robust Quality Engineering

ICRQE is a conference for the Robust quality engineering, where case studies from over the world introduced.

## Basic Information

【Date&Time : Japan time】 September 10-17, 2021

- On-demand presentation : 9:00 September 10 – 17:00 September 16
- Web Discussion : 9:00 September 10 – 17:00 September 16
- Live Discussion : 9:00 – 12:00 September 17

【Format】 Online

- On-demand presentation : RQES server and YouTube
- Web Discussion : Slack
- Live Discussion : Zoom

【Organizer】 Robust Quality Engineering Society of Japan.  
ICRQE committee

9/10	9/11	9/12	9/13	9/14	9/15	9/16	9/17	9/18	9/19	9/20	9/21	9/22	9/23	9/24
Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri
On-demand Presentations & Slack discussion starts at 9:00am Japan time	Continues and ends 9:00AM Japan time						9:00 to Noon (Japan Time) Live Discussion							
							Live Discussion On-demand Video starts	Continues and ends 5:00 PM Japan time on Friday						

## Keynote Speakers

- Shin Taguchi from American Supplier institute
- Tsubaki Hiroe from Robust Quality Engineering Society
- Shuichi Fukuda from Keio University
- Khairur Rijal Jamaludin from Universiti Teknologi Malaysia

To Register or to Get more information,  
please visit website: <http://icrqe.rqes.or.jp/icrqe2021/icrqe2021.html>

or, contact [icrqe2021info@icrqe.rqes.or.jp](mailto:icrqe2021info@icrqe.rqes.or.jp)



# Program



## 【Key note: On-demand】

Title	Name	Organization
DFSS with Robust Engineering	Shin Taguchi	American Supplier Institute
A Mathematical Engineering Appreciation of Robust Parameter Design	Hiroe Tsubaki	Robust Quality Engineering Society
MT System and Machine Learning for Quality Prediction and Recognition	Khairur Rijal Jamaludin	Universiti Teknologi Malaysia
MTS for Service Quality Management	Shuichi Fukuda	Keio University

## 【Live Discussion on September 17<sup>th</sup>】

UTC	Japan Time	Contents				Leader
0:00	9:00	Opening Address by Prof. Hiroe Tsubaki & Introduction by Shin Taguchi				Shin Taguchi
0:10	9:10	Session-1	Group-C	Robust Optimization-1	Summary of 4 papers + Q&A	Bob Moesta
0:40	9:40	Session-2	Group-A	MT System	Summary of 5 papers + Q&A	Rajesh Jugulum
1:10	10:10	Session-3	Group-B	T-Method & CTS	Summary of 4 papers + Q&A	Shin Taguchi
1:40	10:40	Break & Networking				ALL
1:50	10:50	Session-4	Group-D	Robust Optizaion-2	Summary of 4 papers + Q&A	Shin Taguchi
2:20	11:20	Session-5	Group-E	Engineering Process	Summary of 4 papers + Q&A	Shu Fukuda
2:50	11:50	Best Paper Award Ceremony				Shin Taguchi
3:00	Noon	Adjourn				ALL

## 【Group A : MT System】

No.	Title	Presenter	Organization
1	Study of abnormality discrimination performance of MT method, Standardized Distance, RT method and APRT method	Kazuhiro Dejima	Central Japan Quality Engineering Research Group
2	Monitoring of muskmelon ripeness by MT method using a smell sensor	Shigeomi Koshimizu	Advanced Institute of Industrial Technology
3	Health indicator construction based on MTS with Laplacian score for rolling bearing health assessment	Zhaiming Peng	Nanjing University of Science and Technology
4	Interpretation with obstacles: a chemical and a medical case study revisited	Herbert Ruefer	National University of San Marcos
5	Earthquake prediction using GPS-based Control Station data and MT method	Shoichi Teshima	AngleTry Associates

## 【Group B : T-Method + CS-T】

6	The CS-T with Characterized Process Sensing Data as Effective Explanation Factors	Tetsuo Hosokawa	RICOH Co. Ltd.
7	Prediction Model of Bus Travel Time Using Taguchi's T-Method	Nur Jaafar	Universiti Teknologi Malaysia
8	Taguchi's T-method with Nearest Integer-based Binary Bat Algorithm for Prediction	Zulkifli Marlan	Universiti Teknologi Malaysia
9	Approach to creating new Effective Explanation Factors using the CS-T method and Tree diagram	Makoto Watanabe	RICOH Co. Ltd.

## 【Group C : Robust Optimization-1】

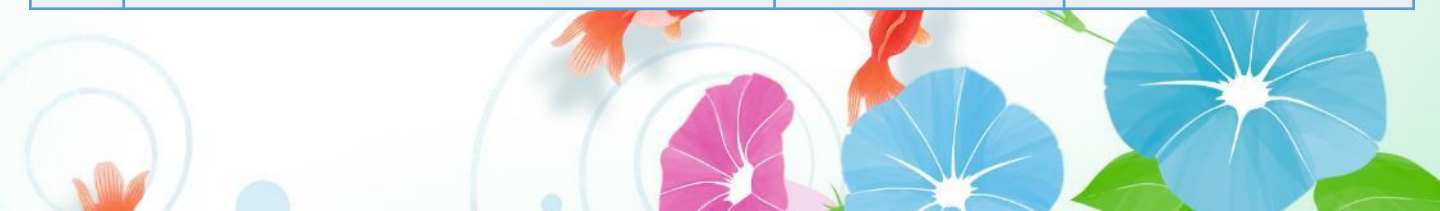
10	Robustness Development in Autonomous Driving Vehicle System	Matthew Hu	
11	Consideration of Functionality in ESD simulation	Ryo Matsubara	Innovation Center, CNS, Panasonic
12	DFSS of an Induction Machine Designed for Propulsion of a Hybrid-Electric Vehicle.	Avoki Omekanda	General Motors Global - R&D Center
13	Optimum Design of Heat Sink as Educational Material	Nishinippon Institute of Technology	Ishida Yuji

## 【Group D : Robust Optimization-2】

14	Design of Taguchi Dynamic Characteristic Parameters and Comprehensive Application of HALT and Data Analysis Mining	Junxian Han	Beijing Sunlight Technology Co., Ltd.
15	Optimization of Semiconductor Final Test Multisite Efficiency and MSE Equation validation using Taguchi Method	Voon Khoo	Universiti Teknologi Malaysia
16	Based on JIS Z 9090 for achievement of unmanned factories Measurement capability verification and measurement reliability improvement activity	Yukihisa Kojitani	YKK Corporation.
17	Deriving Welding Conditions of Full-Penetration Tee Joint for One-Side Single Pass Welding Fabricated with Laser-Arc Hybrid Welding	Shuichi Tsumura	National Maritime Research Institute

## 【Group E : Engineering Process】

18	Position of the Quality Robust Engineering in a certain Subject-Solution Systems	Osamu Kumasaka	Industrial Innovation Institute Inc.
19	Learning to Build: The Five Bedrock Skills of Innovators & Entrepreneurs	Bob Moesta	The Re-Wired Group
20	Lessons Learned from One Hundred Robust Engineering Applications	Eduardo Moura	Qualiplus Consulting, Brazil
21	The Journey with Robust Design and Robust Engineering	Jianhua Zhou	JHZ Strategic QA



# Application Procedure

## How to Register

1. Please visit ICRQE registration site below:  
URL : [http://icrqe.rqes.or.jp/icrqe2021/icrqe2021\\_06.html](http://icrqe.rqes.or.jp/icrqe2021/icrqe2021_06.html)
2. Download the registration form and fill it out.
3. Send the registration form to [icrqe2021info@icrqe.rqes.or.jp](mailto:icrqe2021info@icrqe.rqes.or.jp)



## Registration Fee

Participants	Fee
RQES Members	10,000 JPY
Non-members	20,000 JPY
Students; REQS Member	3,500 JPY
Students; Non-member	6,500 JPY

**Participants of the 29th Conference on Robust Quality Engineering (RQES2021S)** are invited to attend free of charge. We will inform you how to participate by e-mail.  
No registration is required.

## Registration deadline

August 31<sup>st</sup> 2021

## Payment Methods

Credit Card only

Robust Quality Engineering Society(RQES) is now looking for members

### Joined now and participate in the conference as a member!

The RQES is looking for members who are interested in Robust quality engineering and who would like to know various information about quality engineering. If you join now, you will be able to get the journal and attend the conference at the member price.

< How to become a member of RQES and join ICRQE >

1. Please send an email to the address below, stating that you would like to become a member.  
[icrqe2021info@icrqe.rqes.or.jp](mailto:icrqe2021info@icrqe.rqes.or.jp)
2. We will send you the membership form. After reviving membership form please fill it out and return to us.
3. We give you a member ship ID and Password.
4. Register ICRQE with your ID in the registration form.

## Flow from registration to the day of the event

1. Register from the registration site (dead line is August 31<sup>st</sup> 2021)  
URL : [http://icrqe.rqes.or.jp/icrqe2021/icrqe2021\\_06.html](http://icrqe.rqes.or.jp/icrqe2021/icrqe2021_06.html)
2. We will send you the following:
  - a)Address and Pass for On-Demand presentation
  - b)Zoom Invitation for Live Discussion
  - c)Slack invitation for Web discussion
3. Notify participants of the Zoom communication test schedule.
4. Conducted Zoom communication test
5. On the day of the conference September 10-17, 2021

Caution: Cancellations will be accepted until September 10<sup>th</sup> .  
No cancellations will be accepted after that date.

## Need more detailed information ?

Please visit ICRQE home page and Q&A/How to page for more information.  
← Home page URL:<http://icrqe.rqes.or.jp/icrqe2021/icrqe2021.html>  
Q&A page URL: [http://icrqe.rqes.or.jp/icrqe2021/icrqe2021\\_05.html](http://icrqe.rqes.or.jp/icrqe2021/icrqe2021_05.html) →



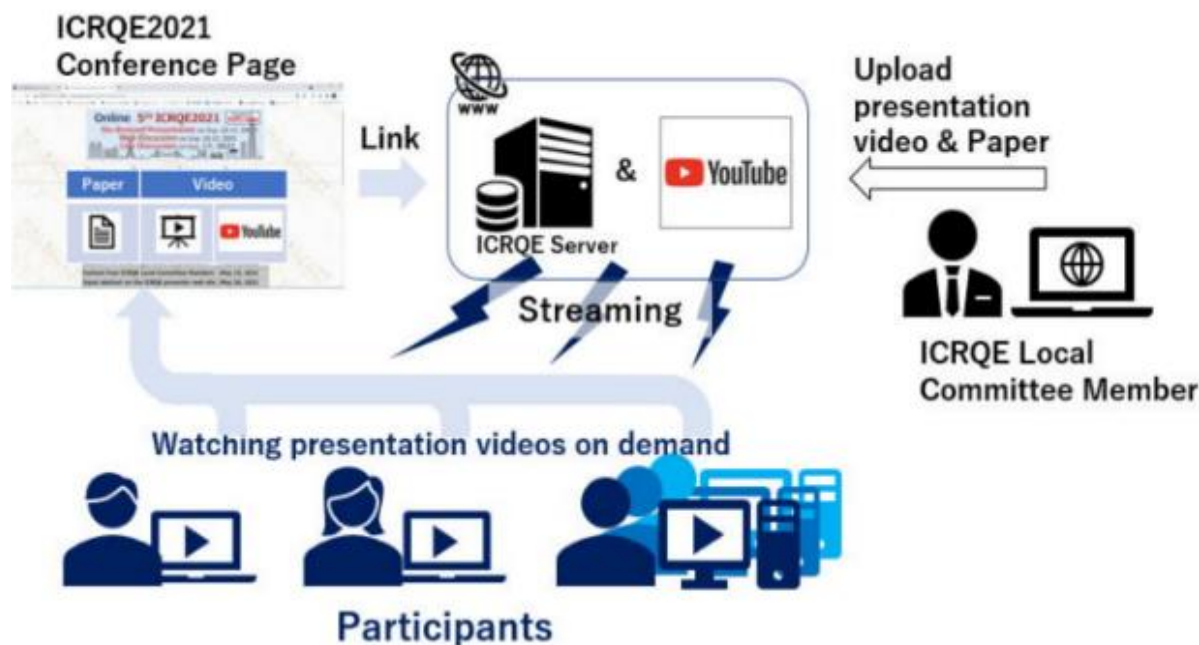
## Invitation to submit papers for RQES Journal

RQES is now accepting paper submissions in English. Submitted papers will be listed in the RQES journal after review.



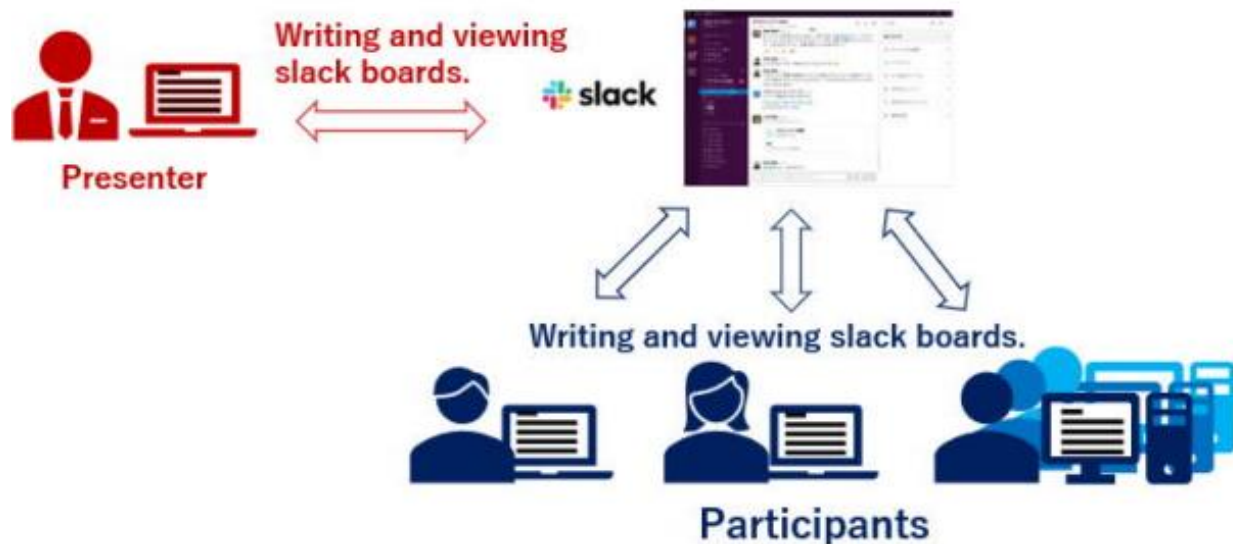
What is a On-Demand Presentation?

The online presentation will be held from September 10<sup>th</sup> to 17<sup>th</sup>, Japan time. During this period, you can watch the presentation videos at any time. The video will be streamed from the ICRQE server and the YouTube site. If you cannot see the streaming video from the ICRQE server, please try a different browser.



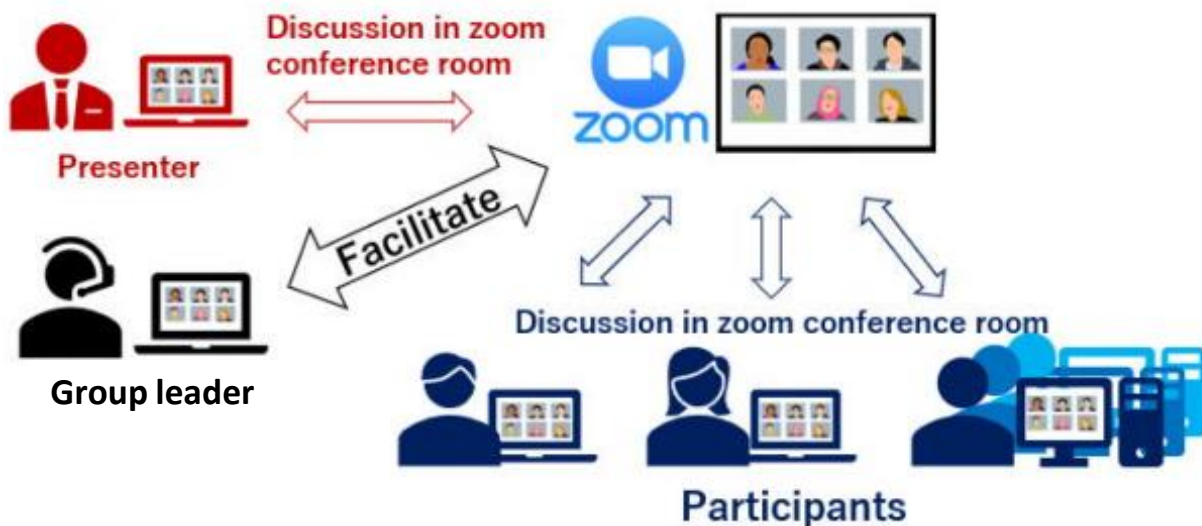
What is Web Discussion?

The web discussion will be held from September 10<sup>th</sup> to 27<sup>th</sup>, Japan time. The discussion will be held in the Slack board(BBS). Participants and presenters are free to post discussion on the board. You can post to the discussion board at any time during the period.



What is a Live Discussion?

The Live discussion will be held on Zoom from 9:00 to 12:00 Japan time on September 17<sup>th</sup>. The live debate will be held by Zoom meeting. The group leader will give a summary of each group. After that the presenters and participants will have a discussion about the contents of each session and web discussion.



What is a On-Demand vide of Live Discussion?

“On-demand video of Live Discussion” will provide on-demand video recording of the live discussion to be held on September 17<sup>th</sup>, Japan time. You can see the video during September 17<sup>th</sup> to 24<sup>th</sup>. During this period, you can watch the presentation video at anytime. The video will be streamed from the ICRQE server and the YouTube site. If you cannot see the streaming video from the ICRQE server, please try a different browser.

