# Fundamentals of Threaded Metal Connections:

## Alternatives to Welded Joints? Maintenance free Japanese Solution?

**For Engineers engaged in**
- ✓ Processing Plants
- ✓ Ports and Harbors
- ✓ Railway
- ✓ Infrastructure & Engineering Industries

### DATE & TIME

9:00AM-12:00PM (Cairo time)

DAY 1: Tue. 15 November 2022
DAY 2: Wed. 16 November 2022
DAY 3: Thu. 17 November 2022

### PARTICIPATION FEE

Free * This program will be implemented with the subsidy from the Japanese Government

Samples of Bolt locking devices are provided for FREE

### LANGUAGE

English



### TARGET ATTENDEES

Decision makers such as field supervisors, senior engineers and procurement professionals. Specifically for decision makers who work with installation and design processes that include the use of threaded components (“Bolted joints”).

Professors and Research staff from educational institutions such as engineering universities and companies are also acceptable.

### APPLY TO

Please send an application form to:

AOTS Alumni Society of Egypt
Mrs. Heba Hassan
TEL: 0102 527 7868
Email: hebba76@yahoo.com

By 31 October, 2022

Organized by **The Association for Overseas Technical Cooperation and Sustainable Partnerships** in cooperation with **AOTS Alumni Society of Egypt**

## LECTURER & Seminar Content

### DAY 1 & 2

Dr. Soichi Hareyama (Doctor of Engineering)
Visiting Researcher, former Visiting Professor, Tokyo Metropolitan University
Former Part-time Lecturer: In charge of Mechanics of Materials and Advanced Mechanical Engineering, and Representative of So-Technology
Former Technical Advisor, Hitachi Construction Machinery Co. and Former Chief Engineer, TCM Co.

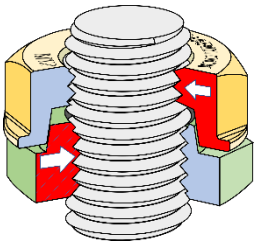
◆"Safe Bolted Joint Design and Fracture Failure Preventive Measures"

Nuts and bolts play an important role in automobiles, electronics , machinery, aircrafts, processing plants, and many other products. in From the year 600 B.C to 400 A.C, the advancement of shipbuilding and performing arts technologies triggered the academic pursuit of the spiral and screw principle. Despite the long history of these basic machine building components, even today there is no end to the number of serious accidents caused by bolt troubles due to insufficient tightening, loosening, or lack of tensile strength. In this seminar, the lecturer will explain methodology for vibration testing of bolted joints (loosening evaluation), tensile strength evaluation, which are compiled from his extensive experience in bolted joint design and practical experience developing preventative measures against bolted joint issues for construction and industrial machinery.

### DAY 3

HARDLOCK®

Mr. Kazumi Ozawa
Chief of Product Planning Section, Technology Development Department
Mr. Jayden Barnes
International Sales Rep. of International Sales Department
From HARDLOCK Industry



◆ "All about HARDLOCK Nut (HLN):"Japanese Kusabi Threaded Technology - Alternatives to welding. The ultimate wedge principal"

General overview of company profile
What is HARDLOCK Nut? ( Why does it stay tight? Is it necessary? )
Bolt locking devices and Prevention strategies
Includes: Case study of related accidents
Prove the Locking effectiveness with Vibration testing and Other technical data
Comparison with other locking technologies and competitor products.
Product variations, sizes, materials and finishes (coatings).
Method of installation : Installation manual and explanation
Usage Case studies: Railway, Pipeline, Harbor Equipment etc..
Improved safety, less inspections, improved operation costs.

| DATE & TIME | 9:00AM – 12:00PM (Egypt)<br>*participate online from their own locations.* |
|---|---|
| DAY 1 & 2<br><br>15(Tue) & 16(Wed) NOV. | ＜Lecture＞<br>Fundamental topics on bolted joints, history and standards, static strength of threads, relationship between external and internal forces applied to threads, fatigue strength of threads, torque method and plastic zone fastening method, observed cases of loosening and their countermeasures, design of bolted joints. |
| DAY 3<br><br>Thu. 17 NOV. | ＜Lecture＞<br>General overview of HARDLOCK Nut<br>Product case studies<br>Q&A |

*AOTS certificate will be awarded for those who have completed this program with satisfaction of AOTS criteria.