# Gear Box and Bolt Design **Optimization Technology**



TECHNOLOGY READINESS LEVEL [TRL]

#### DESIRED PARTNERSHIP

Project concept or Technology Prototype



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- $\Rightarrow$  Software technology to design and optimize a gearbox and bolt based on international design standards (ISO, VDI)
- $\Rightarrow$  By improving the UI, design engineers easily check and modify various design factors

### Client / Market

• All industrial, academic development and research field user for gearbox and bolt application

### **Necessity of this Technology**

- In the past, the design process that only considers simple design factors was used to manufacture products. Therefore, the problems caused by various design factors could not be handled in the initial design stage.
- Foreign software programs have a complex and difficult UI and are expensive that its use among local users is low.
- Upgrades on functions demanded by local users are not made timely.

#### **Technical Differentiation**

- It can be supplied to companies at a price cheaper than foreign software and can be upgraded continuously by reflecting the demand of local users.
- It can provide convenient UI and reflect the demands of the users and co-work with them.
- The development period can be minimized with the optimal design made with the optimal algorithm and review of various design factors in the concept design stage.

#### **Excellence of Technology**

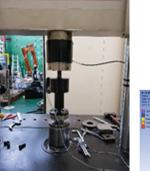
- Considers various design factors in the concept design stage
- Constitutes an easy, simple user-friendly UI
- Draws the optimal design factor with the quick and accurate optimal algorithm
- Applies a design process verified with international standards and experiments
- Has expandability for additional modules (lubrication, multi bolt analysis FED connection)

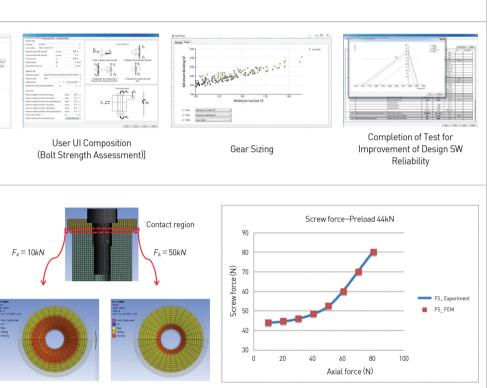
#### Test Equipment Layout



User UI Composition

(Gear Design)





- Bolt strength assessment program



## **Current Intellectual Property Right Status**

### KNOW-HOW

- Wet multiple disk clutch design software
- Gear design and optimization program