

Entangl

Automating Engineering Design

June 2024

The Problem

Design Errors: A Serious Issue

- Design errors are often detected too late
- Result in delays or dangerous outcomes
- Traditional design reviews are infrequent and labor-intensive
- Errors still slip through to manufacturing or operations



Problem Details

Cross-Team Design Reviews

- Engineers work in silos
- Decisions impact broader systems unknowingly
- Example: Changing O-ring material impacting seal integrity at low temperatures (NASA Space Shuttle Disaster)



The Solution

Autonomous Error Detection

- Machines excel at handling large amounts of data
- Our platform:
 - Crawls across knowledge bases (GitHub, Google Drive, OneDrive, etc.)
 - Detects changes in real-time
 - Identifies design problems autonomously



Solution in Action

How It Works

- Suggests targeted solutions to the right engineers
- Delivers daily insights and reviews
- Prevents expensive problems early on

These errors were discovered from today's work:

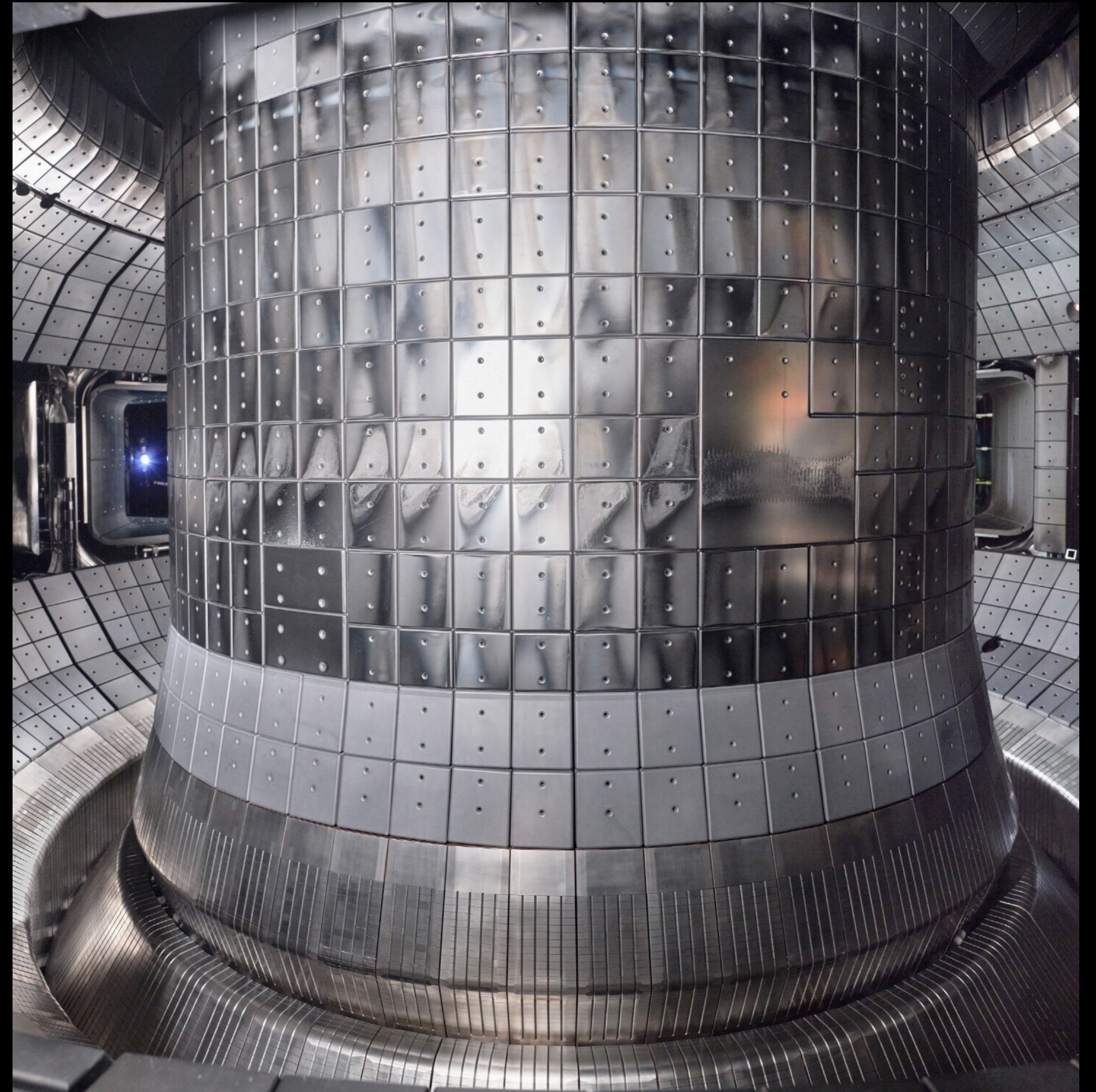
01. High-density SSD needs radiation shielding +
02. Change in frequency of transceiver of communication system results in EM interference. +
03. Vibrational analysis needed on the onboard server racks. +

[View solutions →](#)

The Impact

Benefits

- Saves each engineer two months of work every year
- Makes engineering safer
- Prevents costly errors (e.g., poor engineering cost Boeing \$100B+0)



Opportunity

Safer and Quicker Engineering

- Engineers avoid two months of grinding for design reviews
- Projects are not delayed by an average of seven months
- Early error prevention accelerates project timelines and saves resources

