

# FINITE ELEMENT ANALYSIS (FEA) DESIGN CENTER FACILITY

## FEA Design Center Facility



**64 core - FEA  
Supercomputer**



**3D scanner**



**3D printer**

for more information, please write, fax, call, or email:



**DEPARTMENT OF SCIENCE AND TECHNOLOGY  
METALS INDUSTRY RESEARCH AND DEVELOPMENT CENTER**

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The establishment of the FEA Design Center Facility is in support of the customized local road vehicles (CLRVs). Its focus is on the structural design analysis of CLRVs, particularly the chassis and body of jeepney, tricycles, AUVs and mini buses to discern safety and weight optimization.

FEA is a method used in solving stress-strain relationship in structures and solid bodies. It is mostly used in the industry in the analysis and optimization phase to reduce the amount of prototype testing and to simulate designs that are not suitable for prototype testing. Computer simulation allows multiple “what-if” scenarios to be tested quickly and effectively.

### **FEA Capabilities:**

- Crashworthiness
- Random Vibration
- Buckling (linear and non-linear)
- Impact
- Linear Static
- Non-linear Dynamic
- Large Deformation Dynamics
- Topology and Optimization
- Rigid Body Dynamics
- Quasi-Static Simulations
- Thermal Analysis
- Fluid Analysis

