

**Department of Mechanical Engineering**

**Institut Teknologi Sepuluh Nopember,  
Surabaya, Indonesia**

**Suwarno (hydride materials)**

**Vivien S. Djanali (computational modelling)**

**Unggul Wasiwitono (automotive)**



**ITS is located in Surabaya,  
The industrial and 2<sup>nd</sup> largest city in Indonesia**



**PVIA**  
PHOTOGRAMMETRY  
VISION & IMAGE ANALYSIS

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PHOTOGRAMMETRY  
VISION & IMAGE ANALYSIS

MIPA Tower  
@04/2/2015  
Teknik Geomatika ITS



showcase

# ITS SURABAYA AT A GLANCE



**#1**

20.000 stdnts  
1000 acad staff  
180 laboratories



**#2**

rank 5 nat: Pub. Scopus  
rank 4 nat: entrance exam  
1/11: Nat. autonomus Univ



**#3**

accredited A  
for institution and  
almost all study prog.



**#4**

HUB univ for  
23 Univ in  
EPI



**#5**

one best  
innovative univ.



**#6**

leading Univ in EPI

# Academic Profile

## Faculties of Mathematics and Sciences

- Mathematics
- Physics
- Statistics
- Biology
- Chemistry

## Fac. of Industrial Technology

- **Mechanical Eng.**
- Electrical Eng.
- Chemical Eng.
- Industrial Eng.
- Engineering Physics
- Material Eng.
- Computer Eng.
- Biomedical Eng.
- Business Manag.

## Fac. of Civil Eng. And Planning

- Civil Eng
- Environmental Eng.
- Architecture
- Geomatics Engineering
- Industrial Product Design
- Urban and Regional Planning
- Geophysical Engineering
- Interior Design

## Fac. Of Marine Tech.

- Naval Architecture
- Marine Engineering
- Ocean Engineering
- Marine Transportation

## Fac. Of Information Tech.

- Informatics Engineering
- Information System

12 Doctorate Program

18 Master Degree

28 Under Graduate

# International Network

**AUN/SEED-Net**  
Asia University  
Network/South-East Asia  
Engineering Education  
Development Network

**ASEA Uninet**  
ASEAN European Academic  
University Network

**ASAIHL**  
Association of Southeast Asia  
Institutions of Higher Learning

**INTERWEAVE**  
Erasmus Mundus Partnership  
Asia-Europe

**AIC**  
Australia Indonesia Centre

**IMPAKT**  
International Mobility  
Programme for Academic and  
Knowledge Transfer  
(Erasmus Mundus)

**ACNET-EngTech**  
ASEAN-China on Establishing  
Network for Cooperation and  
Exchanges among Engineering  
and Technology Universities

# International Students

More than 70 full time international students  
and 250 international student mobility

Malaysia	Myanmar	Timor Leste
Japan	Thailand	Jordan
Netherland	Poland	Libya
Tunisia	Angola	France
Bulgaria	Germany	South Korea
Ethiopia	Lithuania	Yaman
Sierra Leone	Iraq	Burgundi



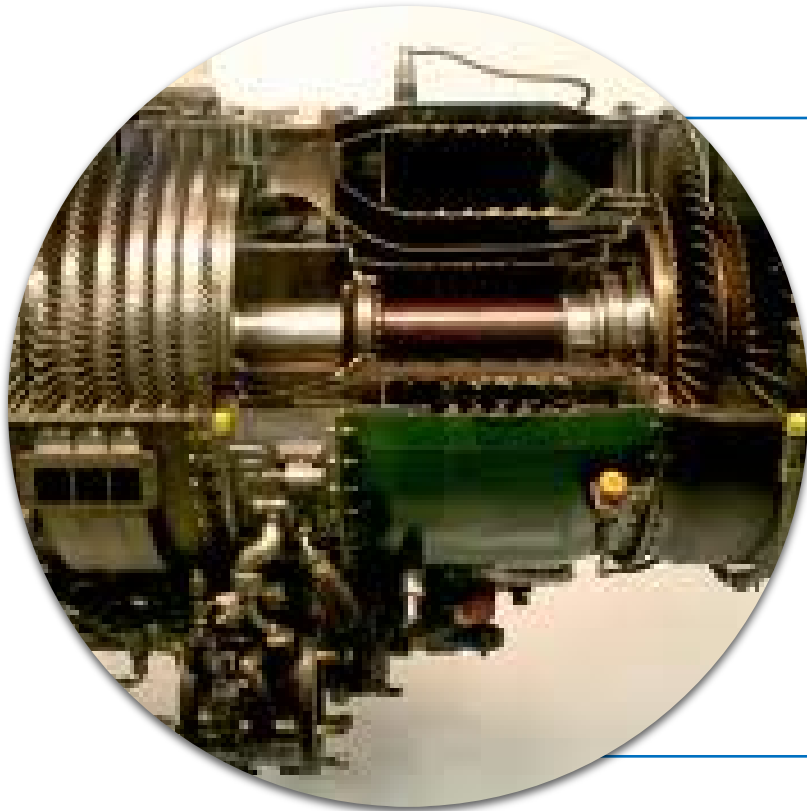
# ITS MAP

Location of  
Mech. Eng. Dept

AREAL 187 Ha

Image © 2011 DigitalGlobe  
© 2011 Europa Technologies  
© 2011 Tele Atlas





**Material & Manufaktur**

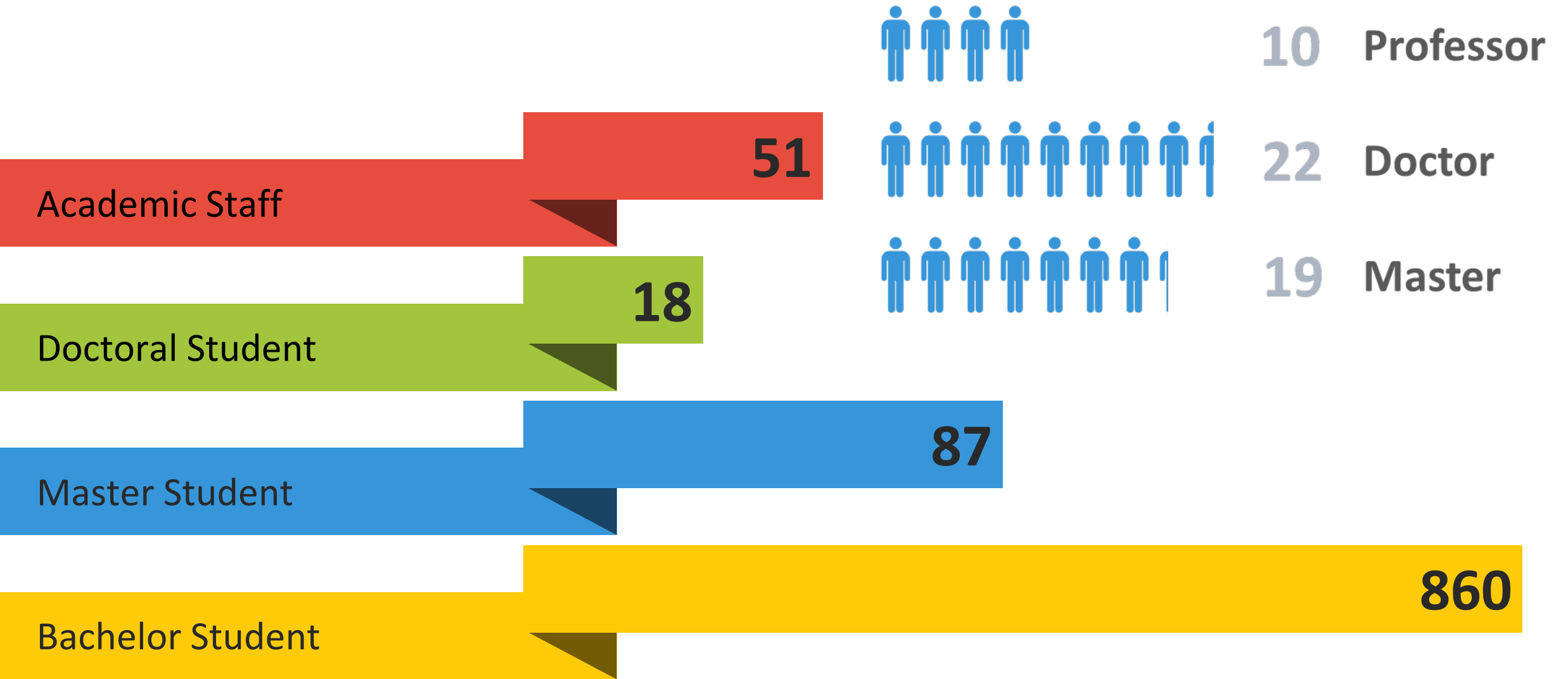


**Kinematika & Dinamika**

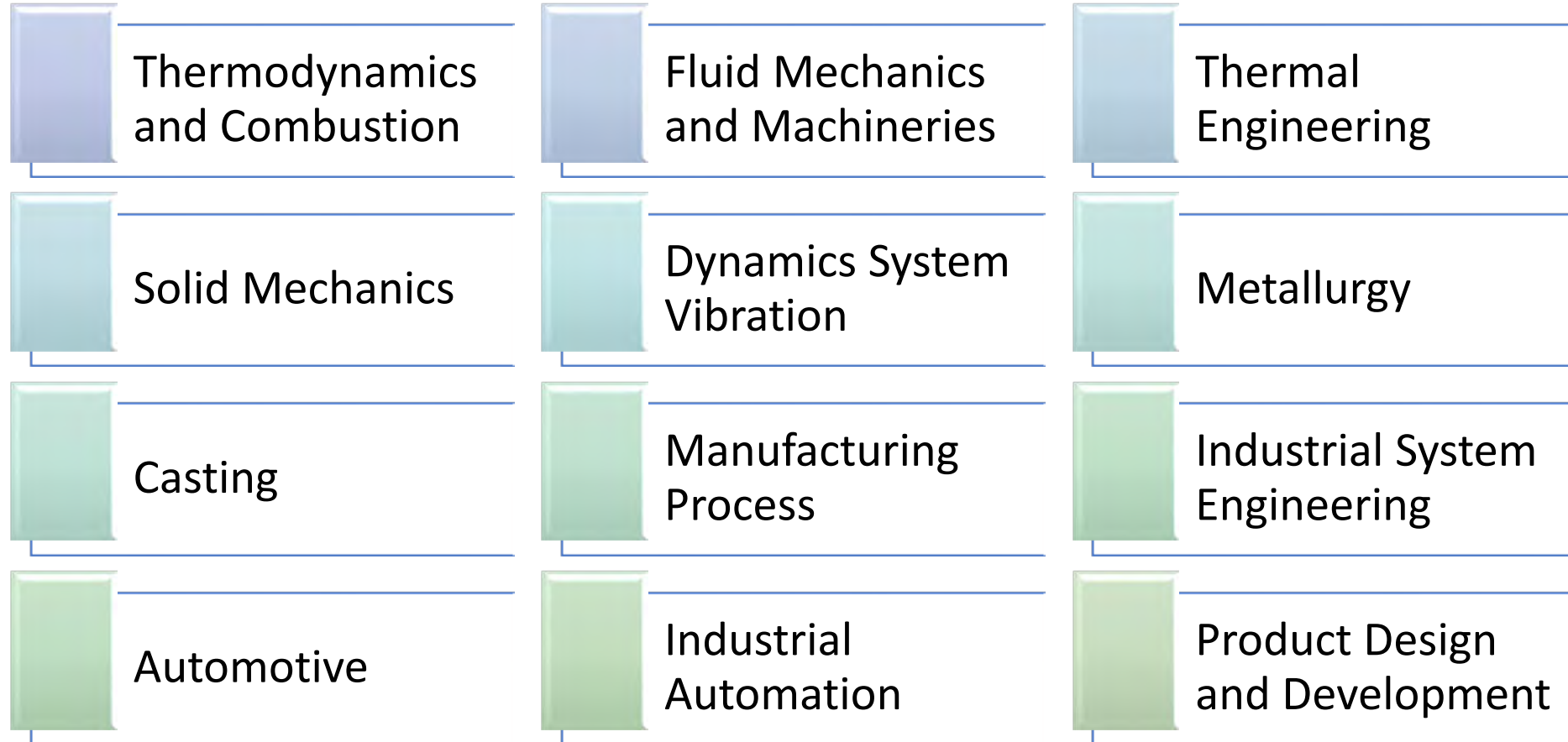


**Konversi Energi**

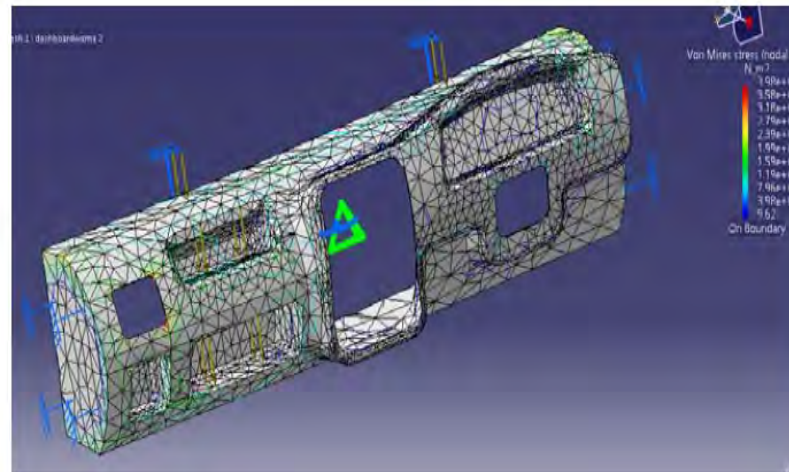
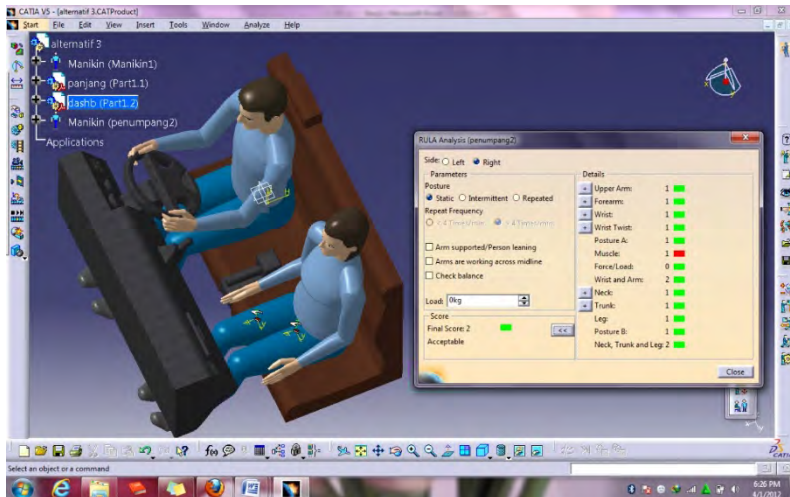
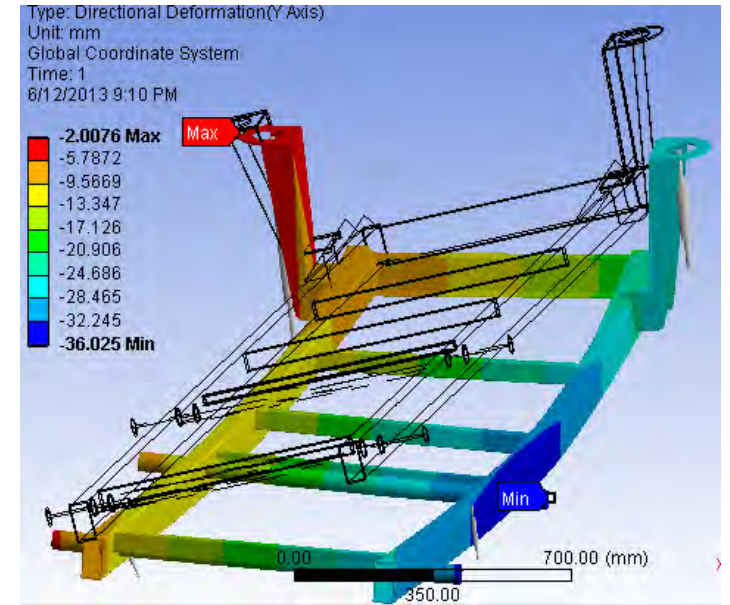
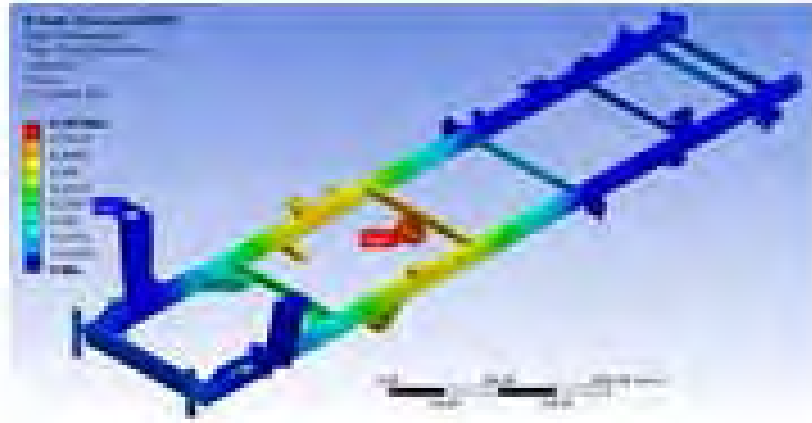
# DEPARTMENT OF MECHANICAL ENGINEERING IN FIGURE



# Laboratories



# Research in Automotive: multipurpose vehicle



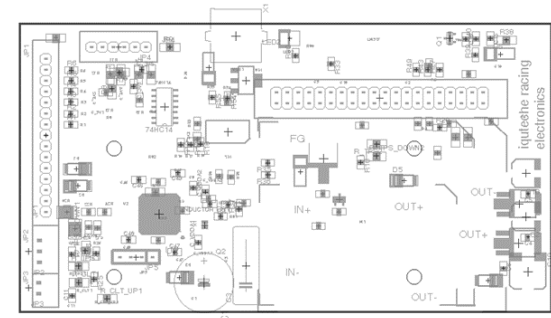
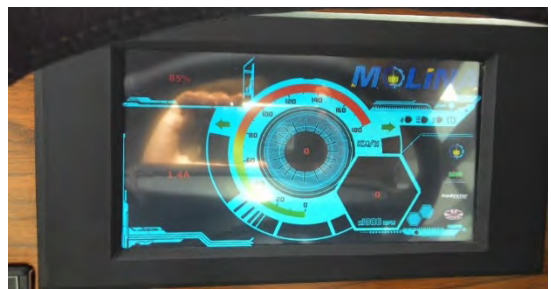
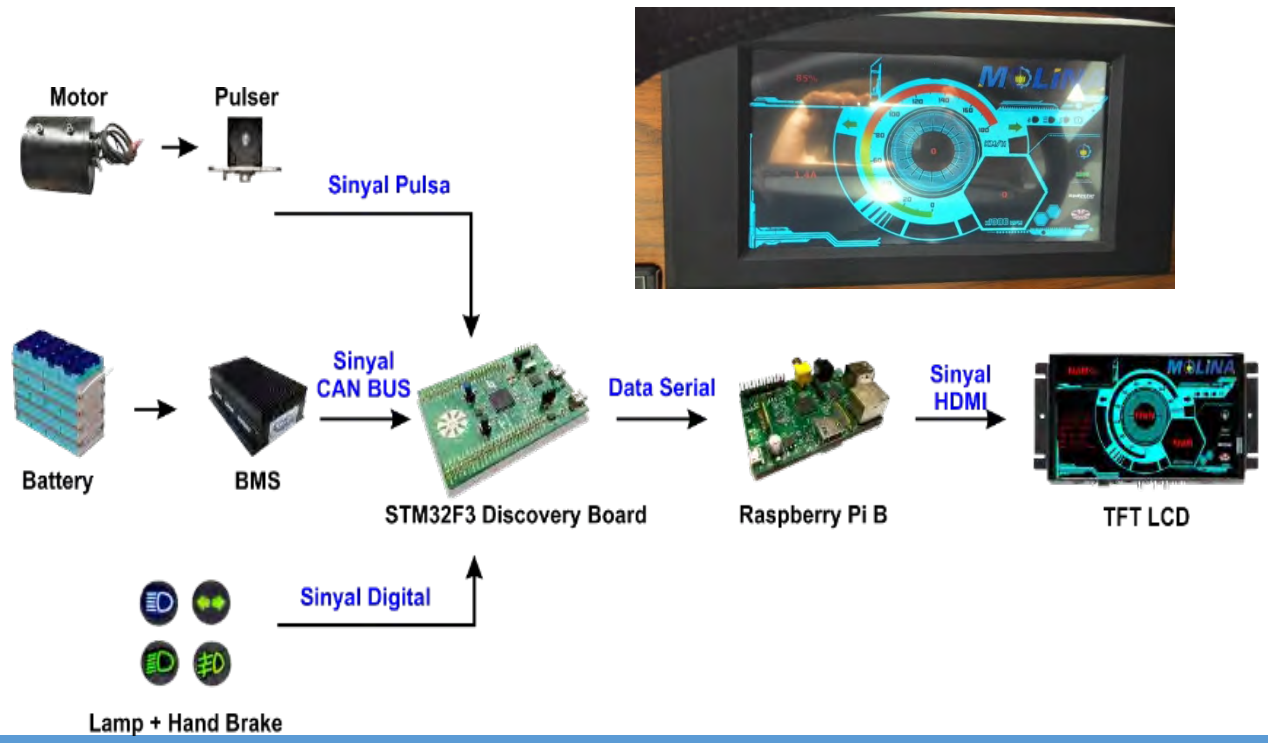
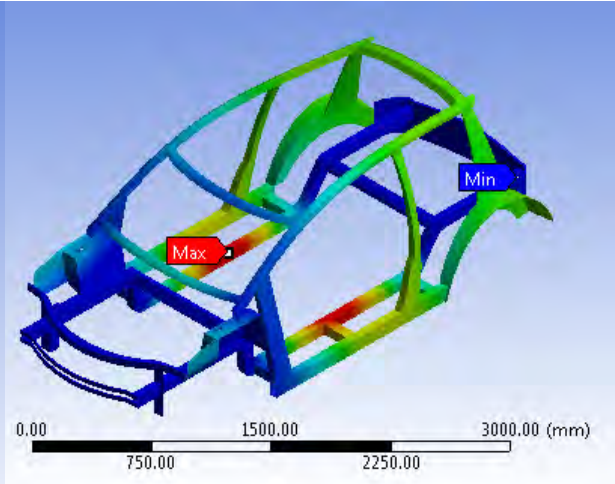
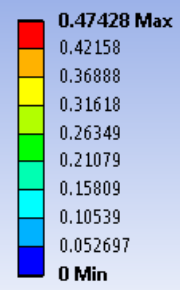
Supporting labs:

- ✓ Automotive
- ✓ Thermodynamics and Combustion
- ✓ Industrial automation
- ✓ Solid mechanic
- ✓ Product Design and Development

# RESEARCH IN AUTOMOTIVE : ELECTRIC VEHICLE



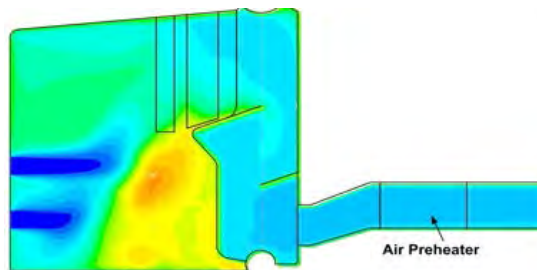
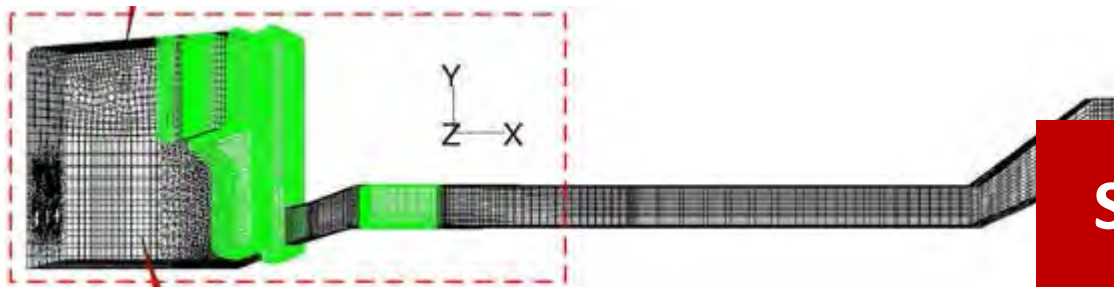
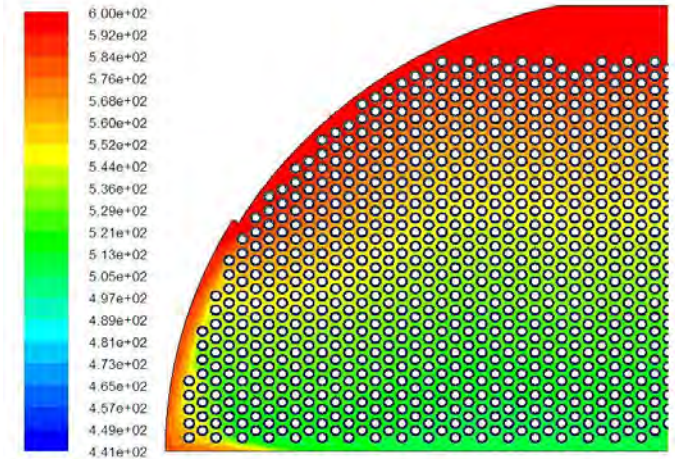
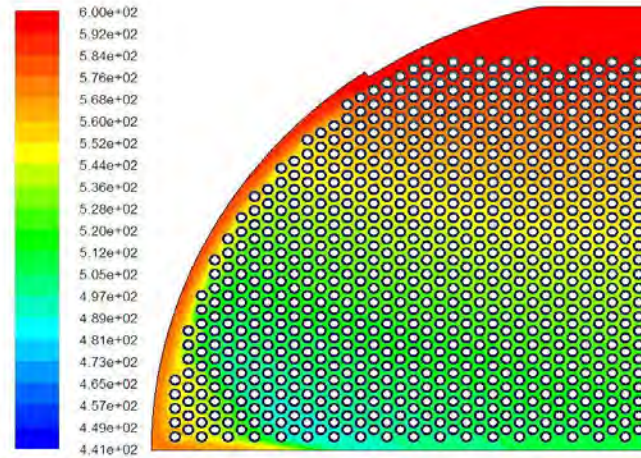
**B: Static Structural**  
 Total Deformation  
 Type: Total Deformation  
 Unit: mm  
 Time: 1  
 12/5/2014 7:45 AM



## Supporting Lab

- Automotive
- Industrial Automation
- Solid Mechanics

# RESEARCH IN HEAT TRANSFER AND THERMODYNAMICS

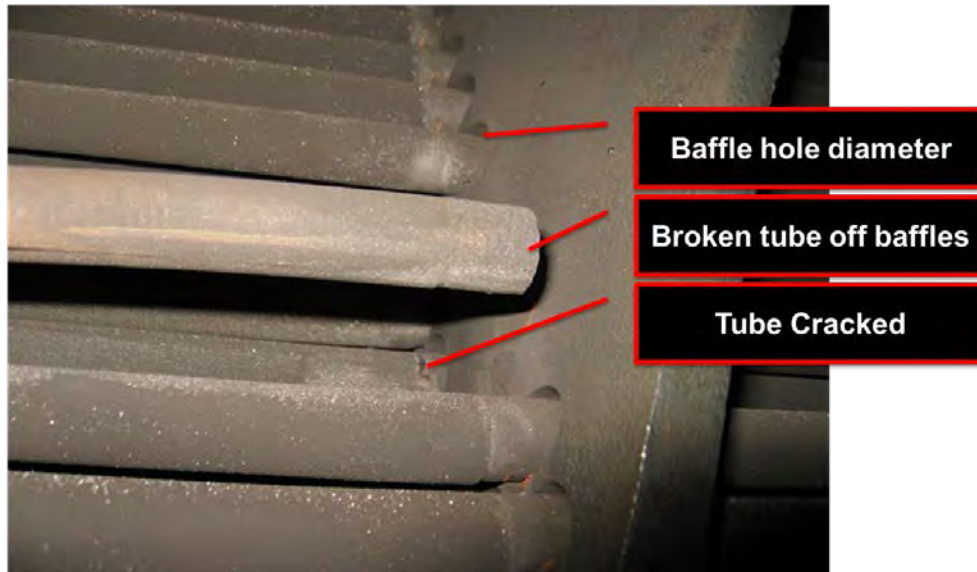


## Supporting Lab

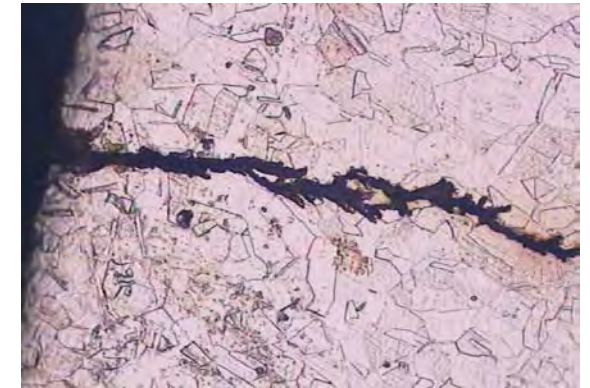
- Thermal Engineering
- Fluid Mechanics and Machineries
- Metallurgy
- Manufacturing Processes



# RESEARCH IN FAILURE ANALYSIS



SUS 304 L Failed Area



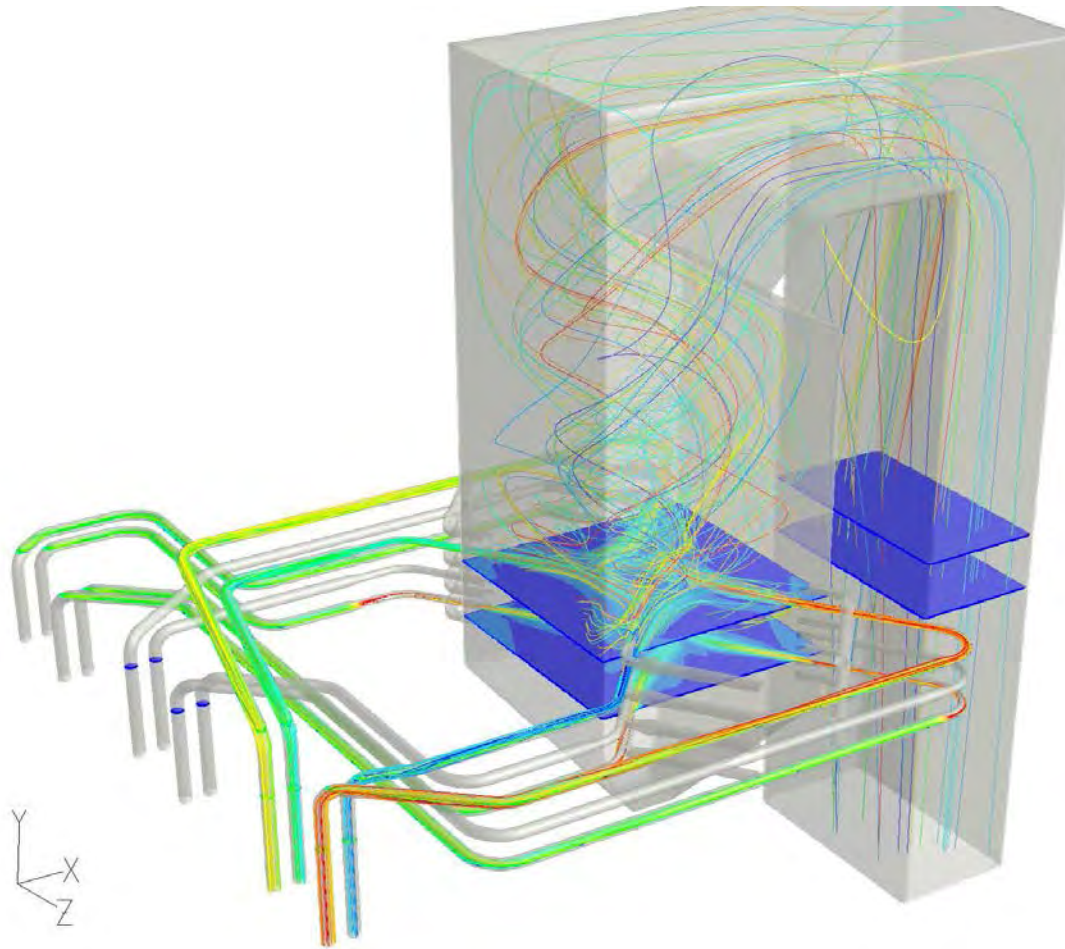
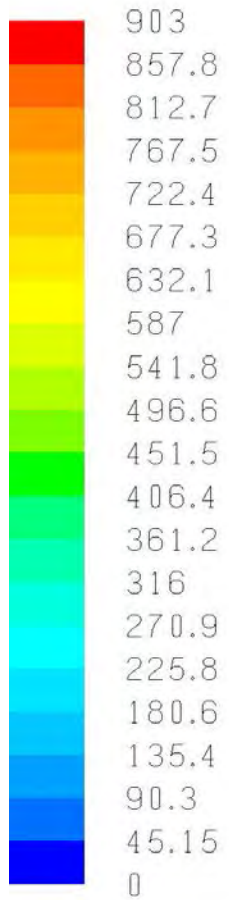
Tubes SCC



## Supporting Lab

- Thermal Engineering
- Fluid Mechanics and Machineries
- Metallurgy
- Manufacturing Processes

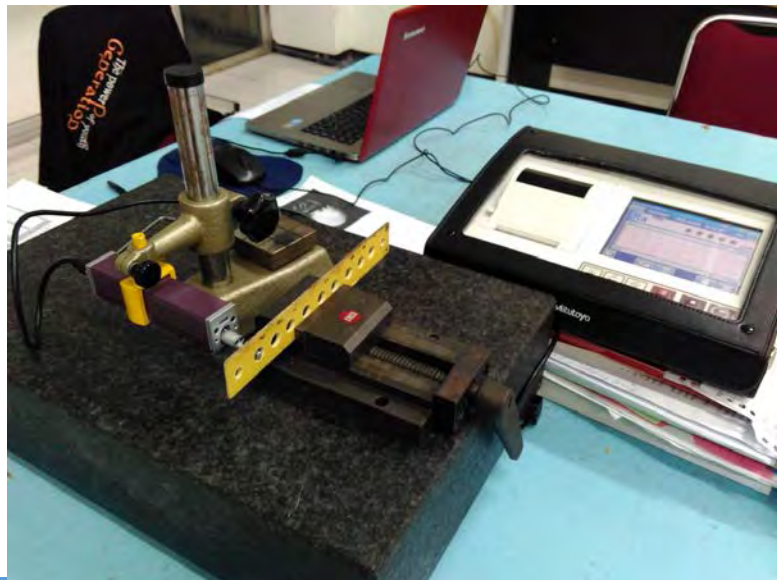
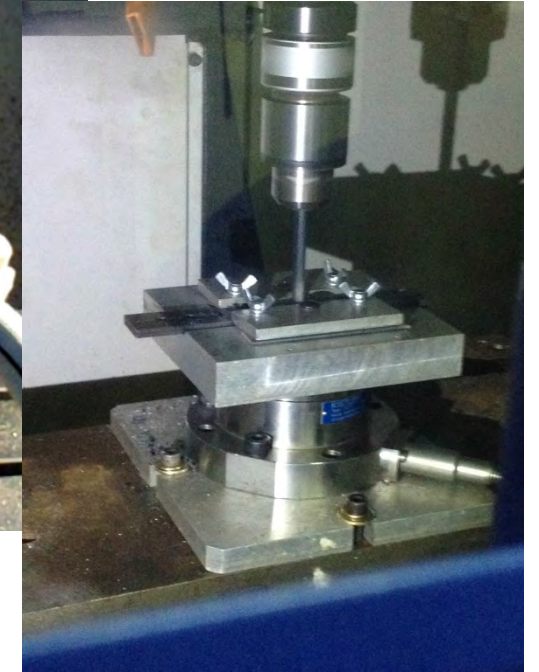
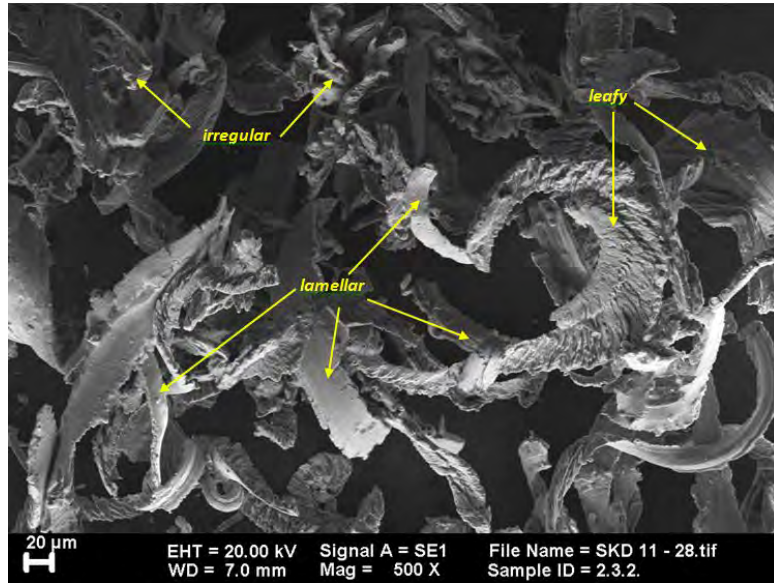
# RESEARCH IN FLUID MECHANICS



## Supporting Lab

- Thermal Engineering
- Fluid Mechanics and Machineries
- Thermodynamics and Combustion

# RESEARCH IN MANUFACTURE AND MATERIAL



## Supporting Lab

- Manufacturing Process
- Metallurgy



**Thank you**