

Presentation of the group  
Steel and Composite Structures

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The Technology Day  
18.05.2016

**MISSION FOR STEEL AND COMPOSITE  
STRUCTURES GROUP**

- Research of today is setting the standards of tomorrow.
  - Improving constructability by increasing **reuse** of structures.
  - Increase competitiveness of new structural solutions by maintaining required structural safety. **INCLUDE INNOVATIONS** by testing and advanced analysis.
  - Generate **scientific** data to back up untested theories/details/structures.
  - Increase understanding of remaining structural life time of **existing** structures.
  
- To provide European **leading education** in area of steel and hybrid structures.

### CHAIR

- Research/development and education
 









Roland  
Abspoel

Peter de  
Vries

Marko  
Pavlovic


Vacancy  
2016
- Research
 

Henk  
Kolstein





Frans  
Bijlaard

Jaap  
Wardenier


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### CHAIR

- PhD Students
 







Sjors  
Van Es

Abdulkadir  
Akyel


Weijian  
Wu

Vacancy  
2016
- Researchers (PostDoc)
 



Jingbin  
Li

Increase number of  
PhD/PostDoc researchers  
approx. 10 PhD until 2020


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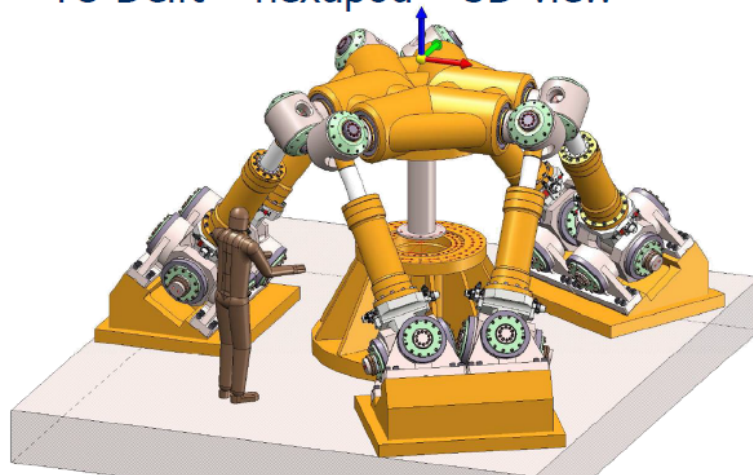
## RESEARCH AREA

- Structures
  - Bridges, (existing and innovation for new-built bridges- hybrid structures)
  - Buildings (industrial, high rise)
  - Special structures, (towers, offshore, pipelines)
  
- Generic research areas
  - Fatigue, Fracture mechanics, Stability, Connection, FEA, Structural safety assessment
  - Steel, composite, FRP structures

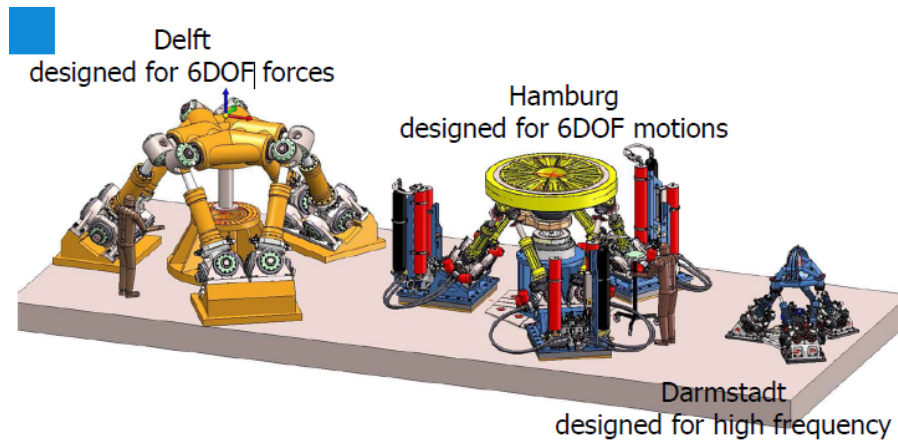
Necessary means: new measuring technology, new equipment

## NEW EQUIPMENT: HEXAPOD

TU Delft – hexapod – 3D view



## HEXAPOD, COMPARISON WITH OTHER LABS



## BASIC CHARACTERISTIC

Variable	Unit	Value
Maximum test frequency	Hz	30
Maximum test acceleration	-	2g
Maximum test velocity	m/s	0.35

Variable	Unit	X	Y	Z
Total force on the platform	kN	400	400	1000
Total moment on the platform	kNm	400	400	1000
Displacement range	mm	300	300	300
Angle range	deg	10	10	10