

"GHEORGHE ASACHI" TECHNICAL UNIVERSITY OF IAŞI FACULTY OF CIVIL ENGINEERING AND BUILDING SERVICES



> **CE.414** <

CE 414 - Special Steel Structures*

What are they?

Space lattice

towers

* a course recommended for 4th year students in Civil Engineering – training in English program

Servic

х

 $\varphi(x + \Delta x)$ is converse.

L NEEDS

 ΔG

 $x = x + \Delta x$

 $\varphi(x)$

T(x)

h = 2 P

Space frame structures

- particular types of civil engineering structures made of steel
- special in terms of: human occupancy, function, dynamic response, risk to society

Cable

suspended

structures

SCLUCTURES

- components of high order technical systems that are CRITICAL FOR NOWADAYS SOCIETAL NEEDS



XXXXXXXX

Steel

storage

structures

Principal Complex

Apply

4,00 2,20

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Why this course?

understanding of the

SYSTEM THINKING APPROACH

APPROACH



Appropriately state problems, find innovative solutions in a sustainability driven, continuous learningbased culture





STEEL

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ALUMINIUM

| Aluminium is a soft metal with a silvery- gray color | Light-weighted metal |
|--|---------------------------------|
| Resistant to corrosion | Somewhat difficult to be welded |
| and rusting A soft metal with | Has a lower melting point |
| relatively a low density | |

| Steel is a metal alloy composed of iron, carbon and few other elements | Has a higher weight |
|---|---------------------|
| | Facily welded |
| Not corrosion resistant and rusting occurs easily | Easily welded |
| | Has a very high |
| A hard metal alloy with a high density | melting point |





COLD FORMED STRUCTURAL STEEL MEMBERS



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