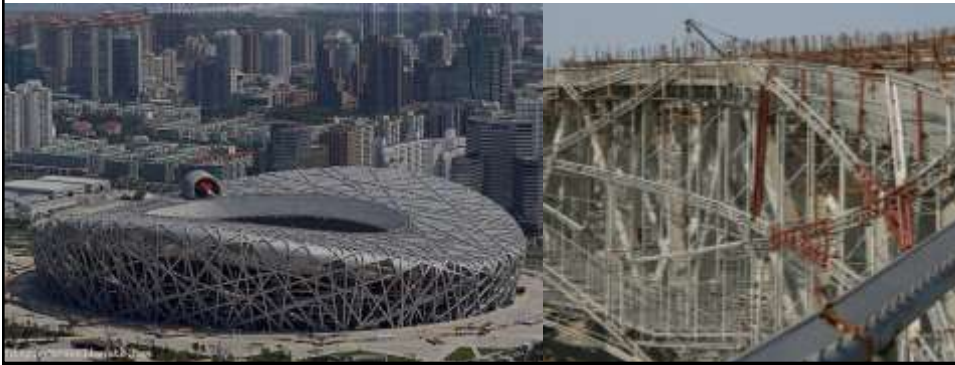


# Steel Structures

## An Introduction

BY Dr. Ali Ahmed



### Main types of structures



#### Steel Structures

Structures made up of steel members as main load carrying elements



#### RC Structures

Structures made up of concrete as the main material along with steel rebars to compensate for tensile stresses



#### Composite Structures

Structures made up of a combination of reinforced concrete and structural steel members to provide the intended use

Introduction to Steel Structures

## Main types of structures



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## Introduction to Steel Structures

## What are steel structures?



A structure which is made from organized combination of structural steel members designed to carry loads and provide adequate rigidity.



## Introduction to Steel Structures

## Examples of steel structures?



Walt Disney Concert Hall, Los Angeles, USA

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## Examples of steel structures?



Beijing National Stadium

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## Examples of steel structures?



Walt Disney Concert Hall, Los Angeles, USA

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## Examples of steel structures?



Eiffel Tower



Tokyo Sky tree



Tokyo Tower



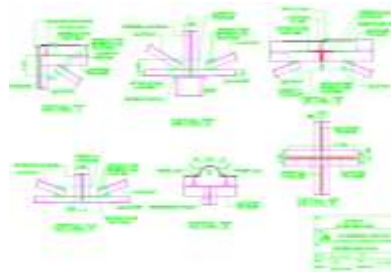
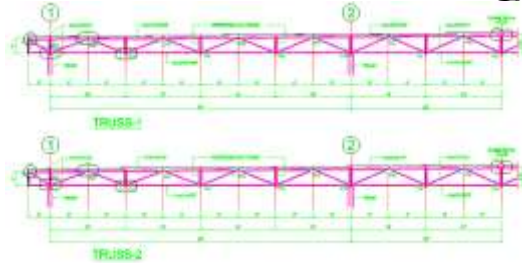
Taipei 101

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## Examples of steel structures?



UCH Power  
HPE Yard  
Karachi



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## Benefits of Steel Structures

**Important Consideration:** Merits and Demerits of any thing vary from person to person & country to country & time to time & project to project.

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## Benefits of Steel Structures



**Reliability**  
**Industrial behavior**  
**Construction time**  
**Strength/Weight ratio**  
**Uniformity & Durability**  
**Elasticity & Ductility**  
**Extension of structures**  
**Reuse & Scrap value**  
**Impervious material**  
**Long span construction**



**Construction cost**  
**Maintenance cost**  
**Corrosion**  
**Fire proofing**  
**Buckling (?)**  
**Aesthetics**

**Introduction to Steel Structures**