Program for the CAS course on "Mechanical & Materials Engineering" June 2024

	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
08:00														
08:30	Arrival day and registration	Opening	Introduction to Design for Accelerators	Steels & Stainless Steels II	Free study time	Composite materials	Additive Manufacturing	Excursion	Vacuum systems for Accelerators	Surface Treatments & Coatings	Free study time	Cryostats and cryomodules	Detectors	Departure day
09:30		Introd. to Mechanics and Structures I	Computational Tools I (design)	Machining		NC magnets	Large structures for Fusion Technology		Forming	Beam instrumentation		Undulators	Collider basics	
10:30		Coffee				Coffee			Coffee			Coffee		
11:00		Introd. to Mechanics and Structures II	Computational Tools II (fabrication)	Non Ferrous Materials		SC magnets	Digital Twins for Accelerators and Detectors		Vacuum brazing	Measurement Uncertainty		RF Applications	Beam Intercepting Devices	
12:00		Introduction to Engineering Materials	Non destructive testing	Sustainable and Affordable Design		Design for Additive Manufacturing	Welding I		Welding II	RF Power and Couplers		Fabrication summary	Alignment and Metrology	
13:00		Lunch							Lunch					
14:30		Physical properties & testing	Mechanical testing	Mech. Meas.(Group A) Design (Group B) NDT (Group C) Visit Firm 3 (Group D)	Mech. Meas.(Group D) Design (Group A) NDT (Group B) Visit Firm 3 (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Visit Firm 3 (Group B)	Mech. Meas.(Group B) Design (Group C) NDT (Group D) Visit Firm 3 (Group A)		Metrology (Gr. A) Fabrication (Group B) Visit Firm 1 (Groups C & D)	Metrology (Gr. C) Fabrication (Group D) Visit Firm 1 (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit Firm 2 (Groups C & D)	Metrology (Gr. D) Fabrication (Group C) Visit Firm 2 (Groups A & B)	Medical Applications with Accelerators	
15:30		Introduction to Metrology	Mechanical measurements										Accelerator Technology Highlights	
16:00				Coffee					Coffee					
16:30		Coffee		Mech. Meas.(Group A) Design (Group B) NDT (Group C) Visit Firm 3 (Group D)	Mech. Meas.(Group D) Design (Group A) NDT (Group B) Visit Firm 3 (Group C)	Mech. Meas.(Group C) Design (Group D) NDT (Group A) Visit Firm 3 (Group B)	Mech. Meas.(Group B) Design (Group C) NDT (Group D) Visit Firm 3 (Group A)		Metrology (Gr. A) Fabrication (Group B) Visit Firm 1 (Groups C & D)	Metrology (Gr. C) Fabrication (Group D) Visit Firm 1 (Groups A & B)	Metrology (Gr. B) Fabrication (Group A) Visit Firm 2 (Groups C & D)	Metrology (Gr. D) Fabrication (Group C) Visit Firm 2 (Groups A & B)	Coffee	
17:00		Standards and Safety	Steels & Stainless Steels I										Closing	
18:00		1-Slide-1-Minute												
18:30				Seminar I		Seminar II				Contamination Control (Groups C & D)	Contamination Control (Groups A & B)			
19:30		Dinner								cinema evening			gala dinner	