

CFD in the Politecnico di Milano Classroom

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In the 1980s, students involved in fluid dynamics research were encouraged to use in-house, rather than commercial CFD software. By the mid-1990s, following the spread of CFD into different industrial sectors, many technical universities began to realize that future engineers would have more job opportunities if they also learned how to properly use commercial CFD codes. Such training would teach the students how to apply the scientific method to CFD analyses of industrial problems.

At Politecnico di Milano in 2001, Prof. Fabio Inzoli proposed a CFD course for PhD students

with specialization in areas related to fluid mechanics (energy, mechanical, bioengineering, hydraulics, aerospace, and nuclear). Over the past three years, the 70-hour course has grown to accommodate 32 students each year, utilizing a staff of eight professors with diverse scientific backgrounds. The students appreciate the multidisciplinary approach and the practical hands-on sessions.

Since 2001, Gerard De Neuville, a Corporate VP of Fluent, has been an invited speaker at the opening lesson, and he has been joined by Giorgio Buccilli from Fluent Italia. In 2004, Dr. Emanuela Colombo, who worked at Fluent Italia until 2001,

has been assigned to teach the CFD module in the Wind Engineering Master with theoretical and practical sessions supported by the new wind tunnel facility. A further collaboration between Fluent and the academic world was the publication earlier this year of the second edition of the first Italian book on CFD, *Fondamenti di Termofluidodinamica Computazionale*, with the first chapter, a historical perspective on CFD, authored by Dr. De Neuville and Prof. Colombo. It is hoped that efforts such as these will work to bridge the gap between commercial CFD development and academic research and education in the future. ■