R&D Work Finalised

The COMET project consortium gathered for the 8th General Assembly meeting and the closing meeting for 2012, held on 11th-12th December in Sheffield, UK; the same location as the 2nd GA meeting, back in November 2010. Only 2.5 months have passed since the previous GA and significant progress has been noted over that period, with the most important being the official end of R&D work and gaining the project extension for 4 more months. From now on the COMET consortium will be focused on demonstrations and training on the COMET platform.

The COMET consortium during the 8th GA meeting at the AML facility

The 4 main R&D Work Packages, WP1 to WP4 presented their final developments and the method to apply each part of the COMET puzzle to each partners' cell. WP1 presented the updated method to gather the necessary parameters from each robot cell and how to use those parameters in conjunction with the developed models to improve the machining accuracy of the platform. WP2 presented the finalized programming interface, which now includes an extensive list of robot models built in, and also the method to integrate any robot type and setup needed. The programming system is soon going to be commercially available as a plug-in for Delcam PowerMILL 2013. WP3 presented the updated tracking system, including the latest developments in the comparison and path adaptation module and the roadmap up until the final implementation in AML and SIR robotic cells. There was no on-line system application until the system was developed within COMET. In WP4 the high dynamic compensation system is now fully operational in IPA's cell and the first results of demo parts machining were presented, confirming that the system is performing as it was designed and only minor tweaks are still needed. WP5 (Demonstration) is now in full swing, with 7 robotic cells now fully operational, demonstrating machining with various configurations of the COMET platform. Accuracy is increasing cut after cut, as operators are becoming more and more familiar with the programming systems and the models are fine tuned.

During the meeting the consortium visited the facilities of AML and TEKS; two major COMET partners, whose facilities were the first to demonstrate robot milling, even from the 2nd GA in 2010. The whole consortium was waiting to see the updated cells and the online compensation demonstration in the AML cell. Neither cell disappointed, presenting significant improvements over the almost two year period since the last visit and also demo applications in areas not closely related with metal machining, such as composite machining with robots.

Present from the European Commission was Prof. Vincenzo Nicolò, Project Technical Advisor, and summarizing his view on the project stated, "I'm very satisfied with the way the project is going and especially the management of Jan Willem Gunnink (Delcam). I'm very happy about the extension that the project has gained; otherwise it would have been a great pity to miss the real part of dissemination." Prof. Nicolò also noticed the importance of addressing robot manufacturers and related industries to promote the needs of robot machining, as this industry section is growing and will continue to grow over the coming years.

Until the project end in June 2013, the COMET consortium will focus on the training and demo activities to disseminate the project results and boost the marketability of the COMET platform thought out European Union, enabling the utilization of the platform's cost-efficiency and flexibility.

For more information about the COMET project visit http://www.comet-project.eu and the project's social media pages, including Facebook (Comet project) and Twitter (@COMET_project).

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For further information please visit:
http://ec.europa.eu/research/industrial_technologies/lists/factories-of-the-future_en.html