

FP7 INFORMATION DAYS for Research PPPs on 11+12 July 2011

Template project ideas

Contact person			
Name	Smart Learning Factories ensuring Energy and Resource Efficiency		
Organisation	Fraunhofer Institute of Machine Tools and Forming Technology		
Address	Reichenhainer Str. 88, 09126 Chemnitz		
Telephone	+49 371 5397 1566	e-mail	melanie.kiessner@iwu.fraunhofer.de
Project information			
PPP <input checked="" type="checkbox"/> Factories of the Future <input type="checkbox"/> Energy-efficient Buildings <input type="checkbox"/> Green Cars			
Topic/Title	Smart Learning Factories ensuring Energy and Resource Efficiency		
Project idea, objectives	<p>The goal is to increase the transparency of resource consumption (e.g. energy) at different shop-floor levels while providing methods to control and decrease the factory's overall consumption.</p> <p>Within the project a framework of methods, software and technical solutions to realize energy-oriented production and infrastructure control in (highly) automated plants will be developed. This framework will be applied to a real production plant resulting in a specific management system, which controls energy as well as resource consumption and improves the plant efficiency.</p> <ul style="list-style-type: none"> • Methods and algorithms for energy-oriented production control • Methods to predict resource consumption • Models of production systems, processes and infrastructure • Definition of evaluation measures (KPIs) • Smart metering applications • Application of the framework to the production system • Installation of the specific management system at the plant • System verification (efficiency improvements) 		
Partner search description			
Type = Company/SME/Research organisation/university			
+ desired skills/knowledge			
Competencies	<ul style="list-style-type: none"> • Provider of production facility • Measurement devices • Software developer for <ul style="list-style-type: none"> ○ generic management systems (MES / PPS / ERP) ○ data acquisition and analysis ○ stand by functionalities and machine tool interfaces • Process and modeling experts • Hardware development and engineering experts 		

