



华中科技大学

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华中科技大学

2016 7



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Support organization

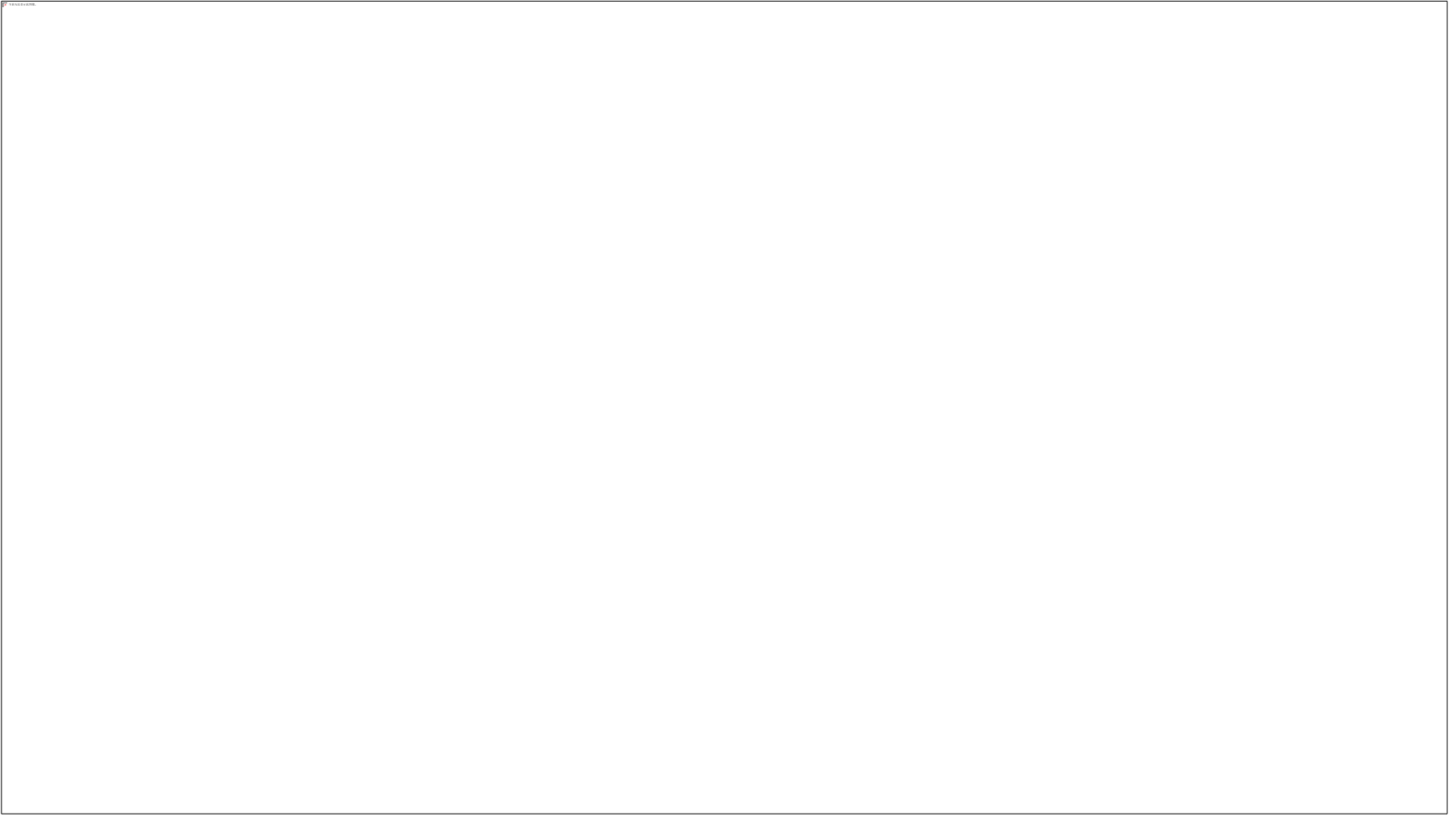
Considerations

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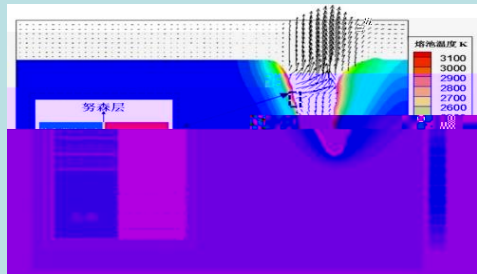


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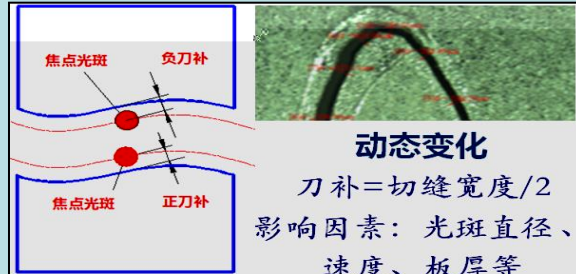
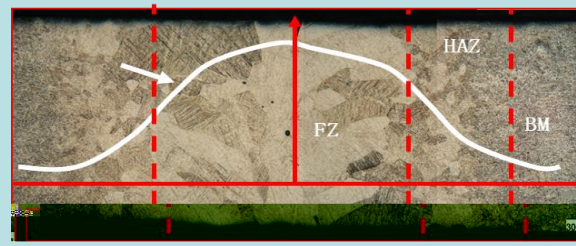
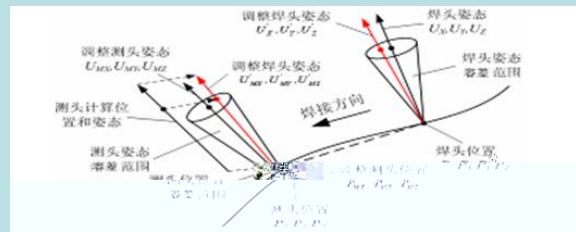
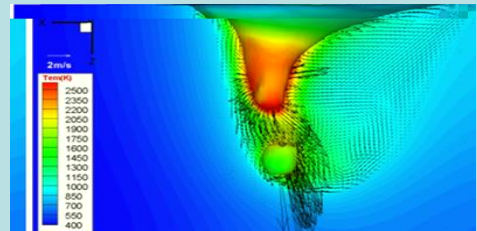
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$$\frac{\partial \bar{U}}{\partial x_i} = \frac{\partial}{\partial x_i} \left(\int_{V_0} \sigma_{ij} \epsilon_{ij} dV \right) = \int_{V_0} \frac{\partial \sigma_{ij}}{\partial x_i} \epsilon_{ij} dV + \int_{V_0} \sigma_{ij} \frac{\partial \epsilon_{ij}}{\partial x_i} dV$$

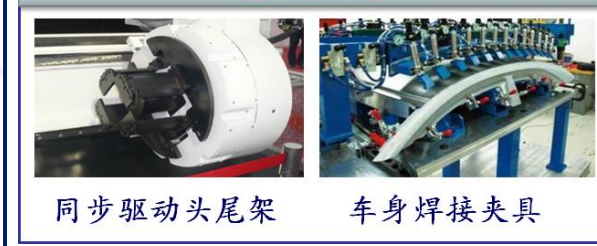
$$\frac{\partial \bar{U}}{\partial x_i} = \int_{V_0} \left(\frac{\partial \sigma_{ij}}{\partial x_i} \epsilon_{ij} + \sigma_{ij} \frac{\partial \epsilon_{ij}}{\partial x_i} \right) dV$$



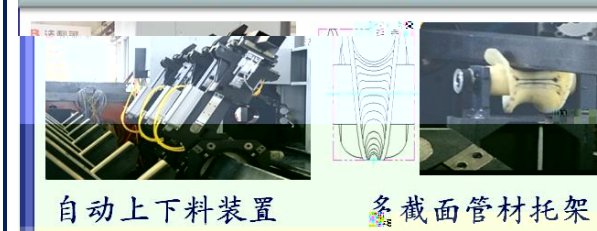
形性控制

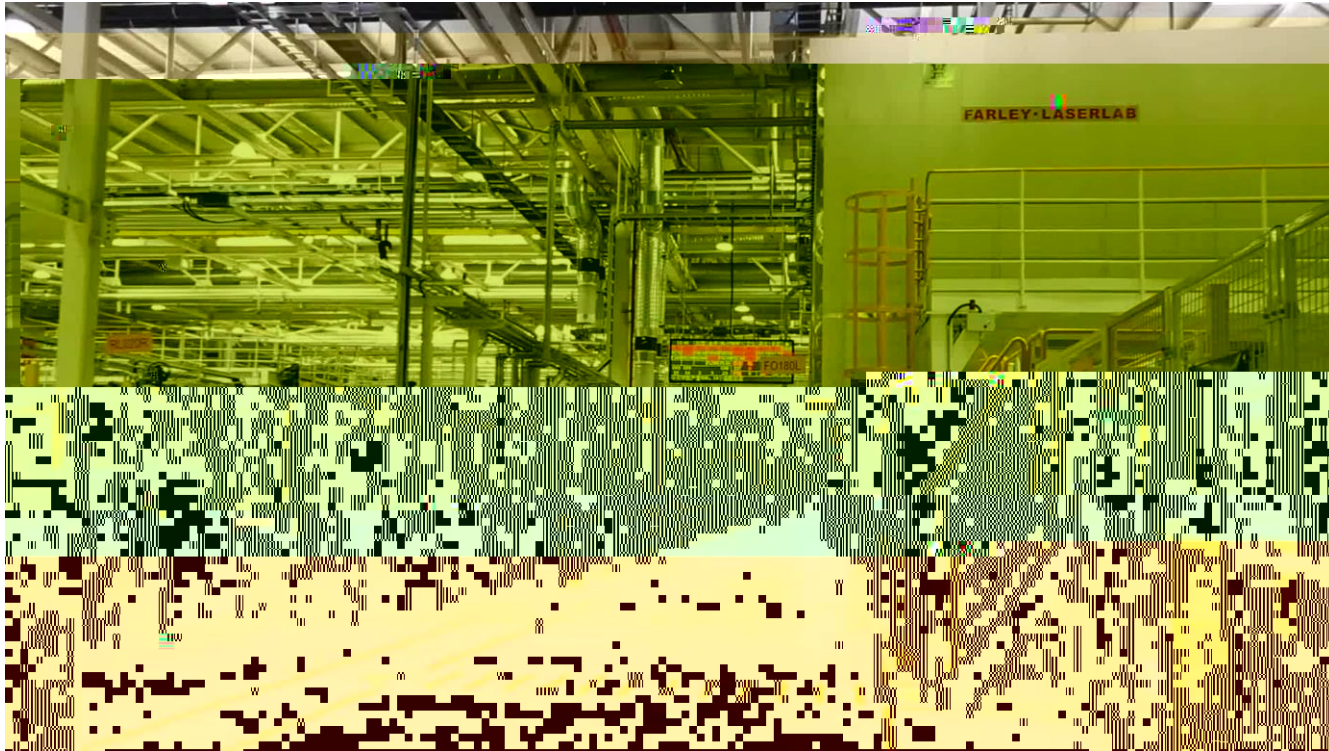


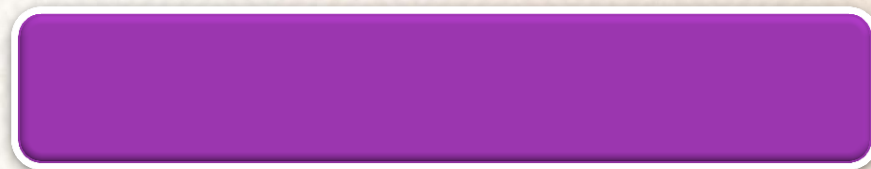
精确装夹



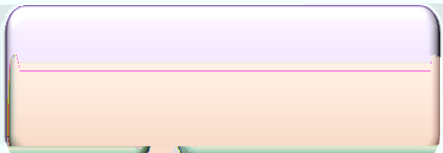
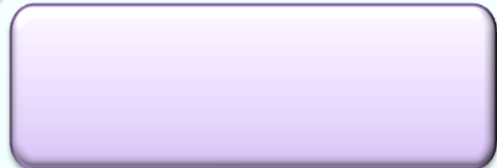
自动化和生产柔性

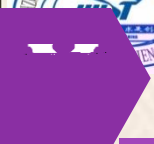






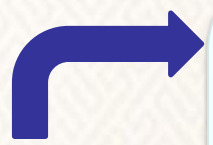


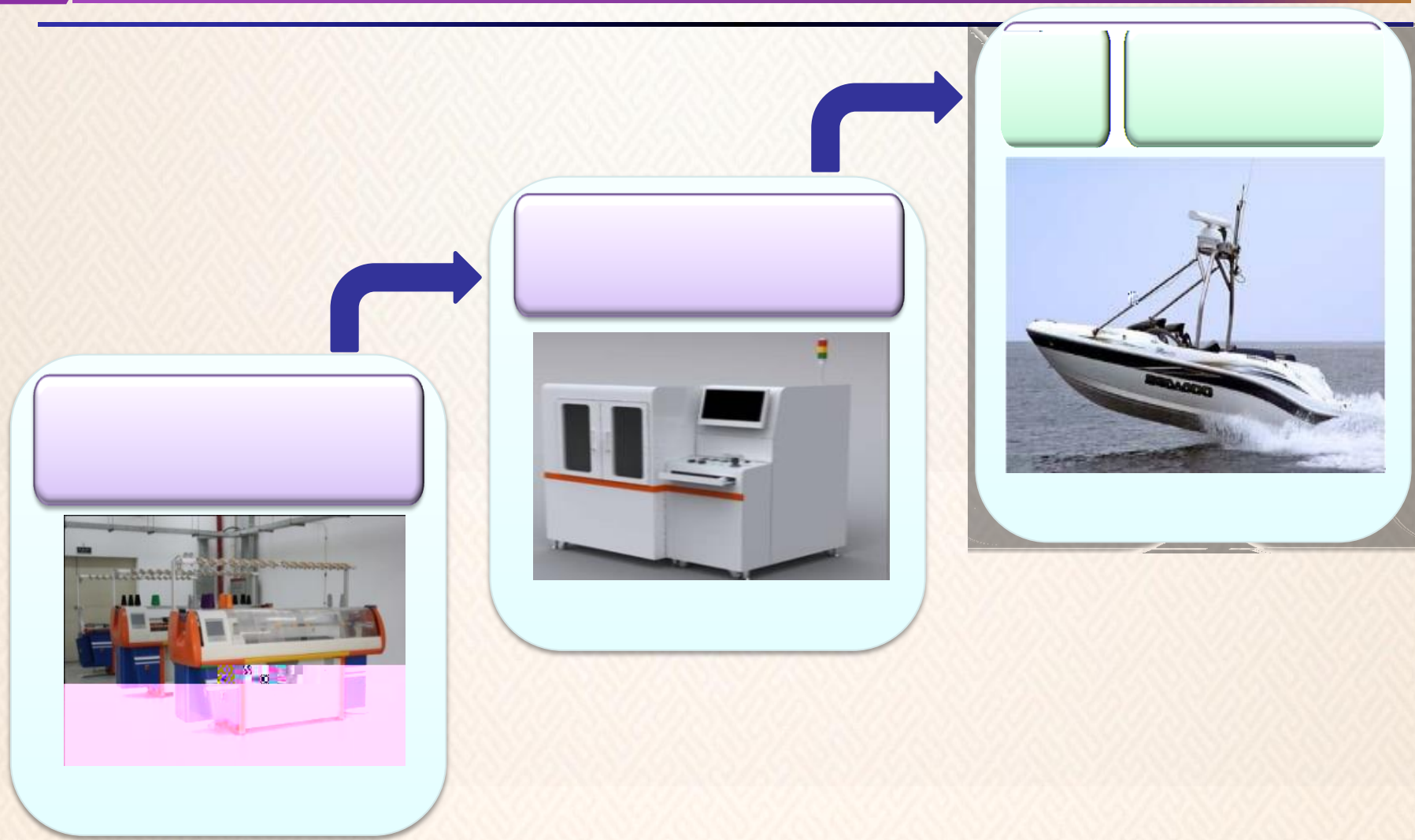


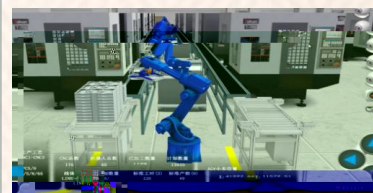


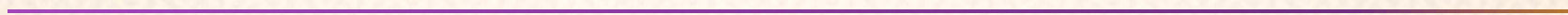
制造装备数字化工程研究中心 东南分中心	激光加工国家工程研究中心 东南分中心	国家CAD支撑软件工程技术研究中心 东南分中心
国家数控系统工程化研究中心 东南分中心	国家制造装备与材料重点实验室 东南分室	材料成形与模具技术国家重点实验室 东南分室

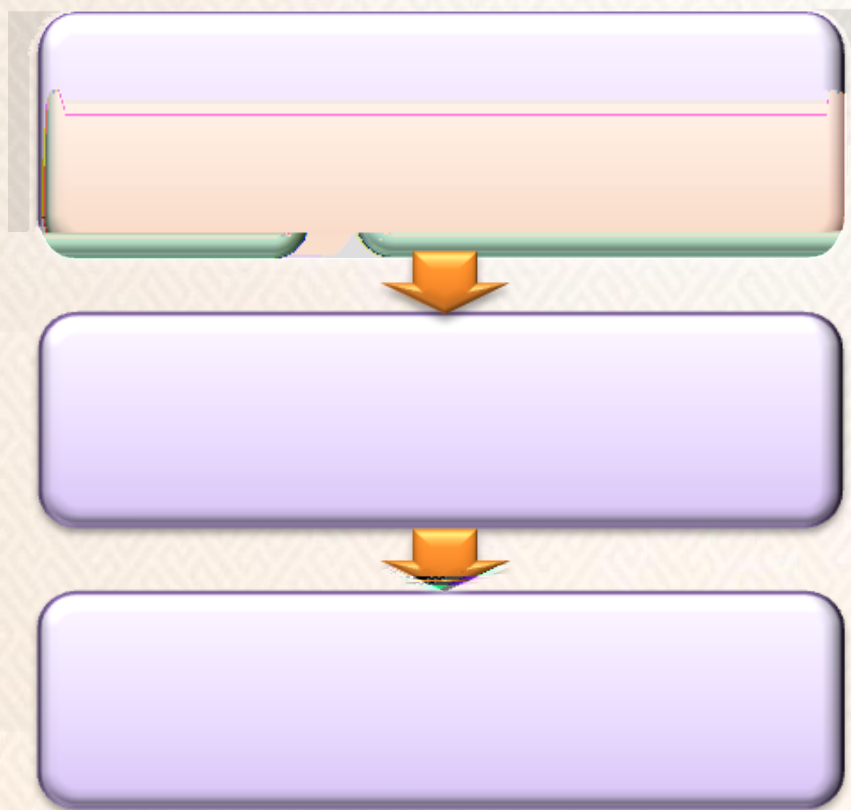
生命科学与医学工程学院 2010级大学材料与科学工程

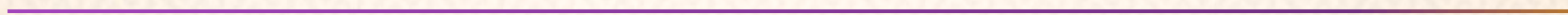




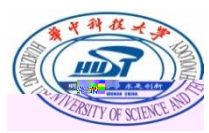












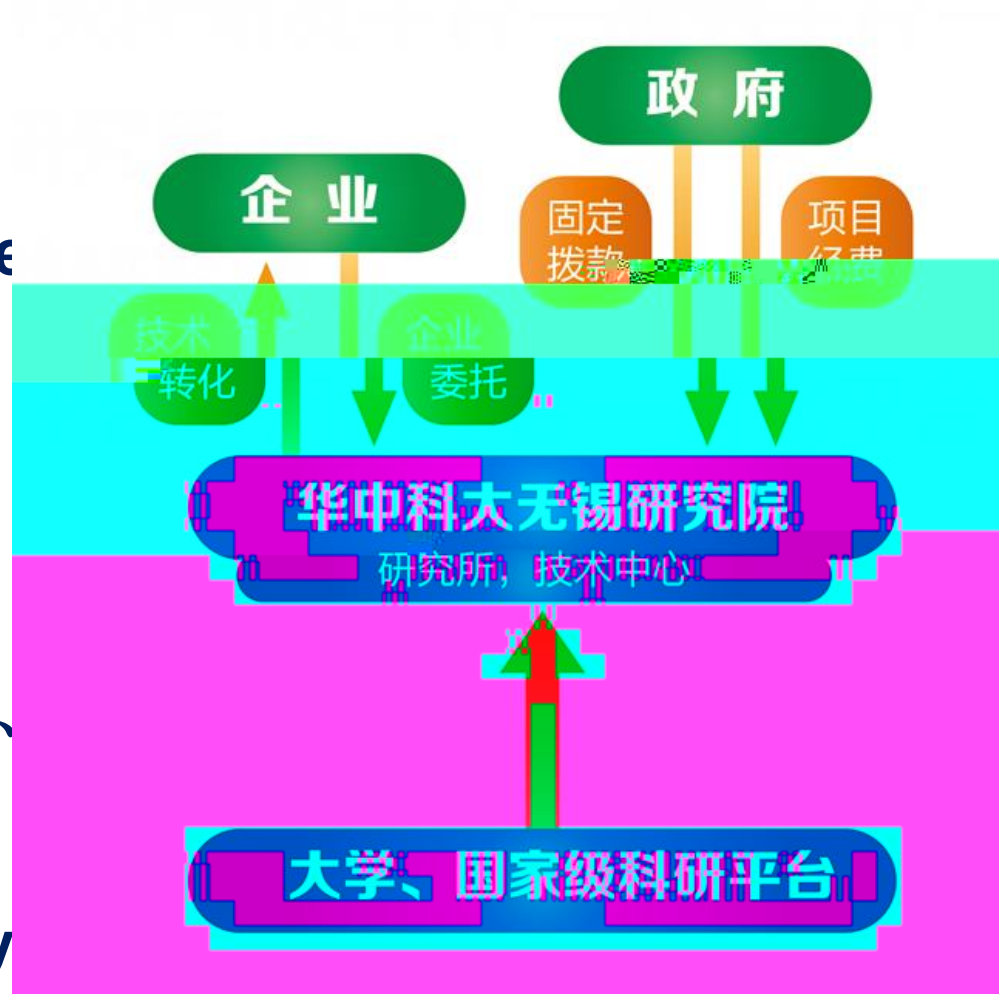
**High efficiency and high
precision processing
technology**

**Technology for intelligent
control equipment**

**Technology for intelligent
manufacturing automation
system**



Learning from the Fraunhofer-gesellschaft mode, the institute guide talents, technology and funding elaborately balanced and stimulate scientific achievements, products and service transforming to industry

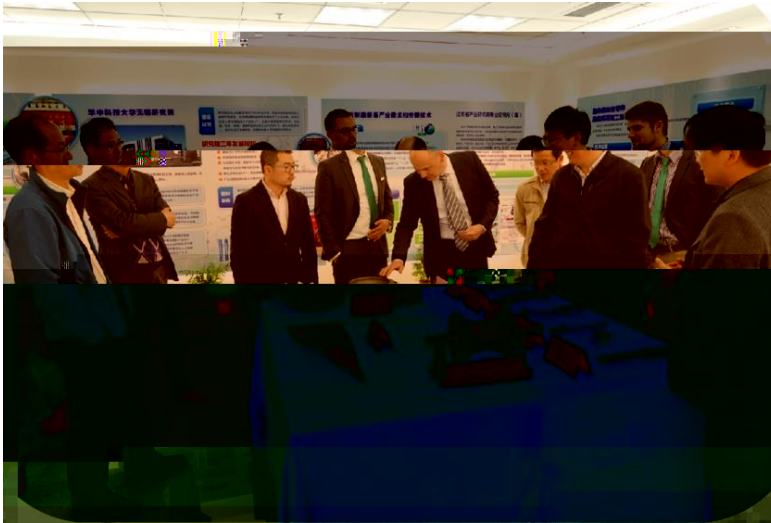




Case Studies

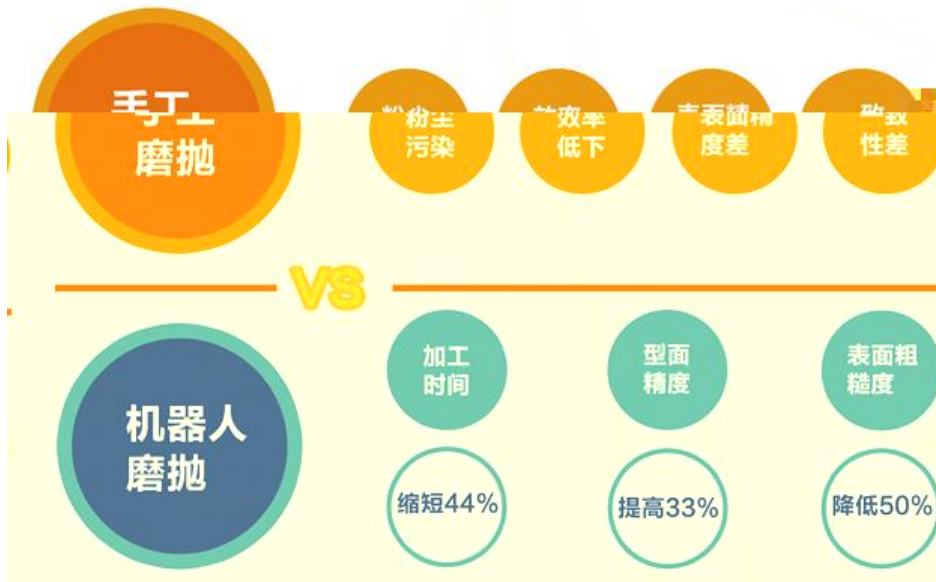
WRI

International cooperation by working with experts from American, Germany and Japan in research and development, as well as personnel training.

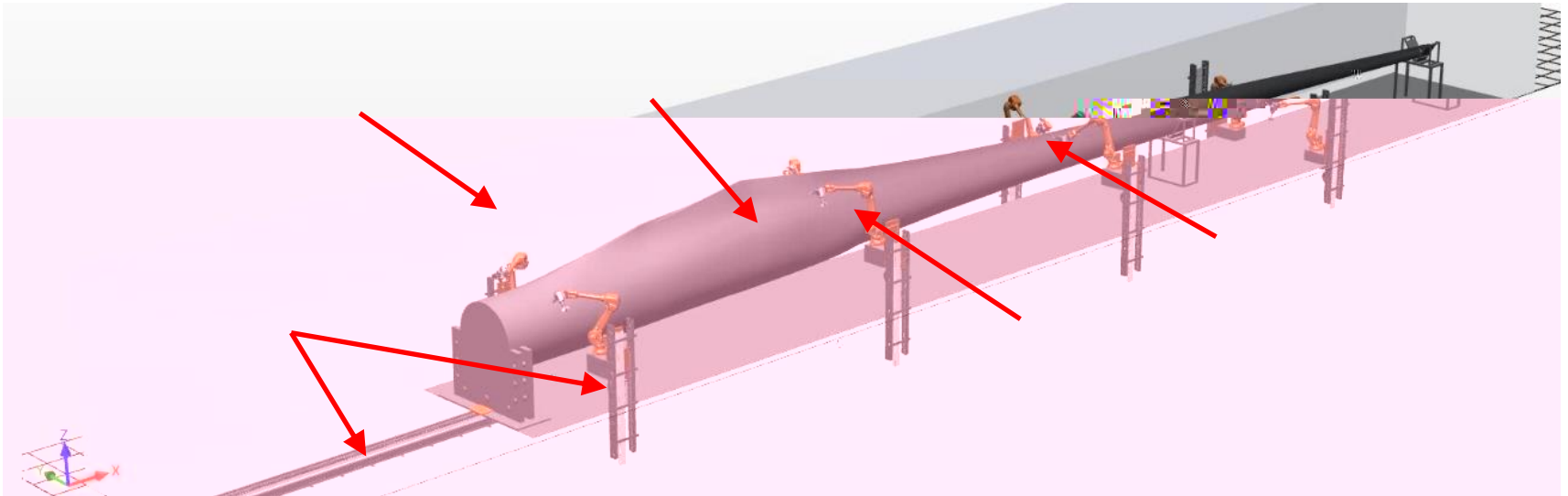




During the 3 months cooperation with WTB, the institute had successfully processed 7 OGV blades and had finished continuous process production of 5 OGV blades in the second batch production (over 200 dimensional parameters all meet requirement, for with WTB has not reach this level of standard after two years of development)



**low
production efficiency, poor working
conditions ,high cost of large wind
power blade, ——multiple cooperative
robotic grinding system for wind
turbine blades composite
material ,over 40 meters long**





Case Studies

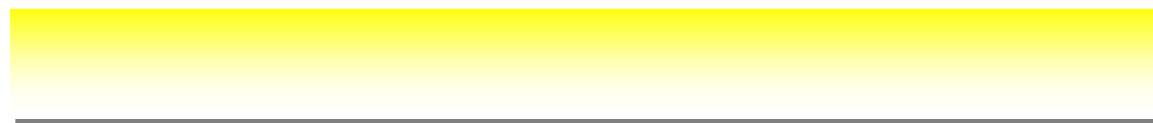
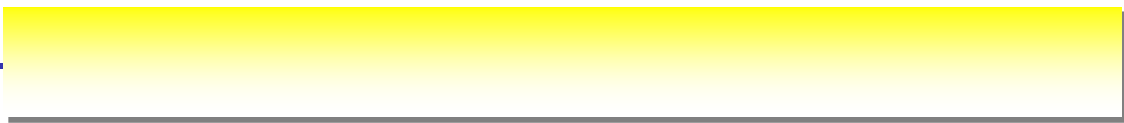
WRI

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华中科技大学 武汉钢铁集团联合实验室 (HUST-WISCO Joint Laboratory)

The joint laboratory was founded in 2009, aims at new technology, new process, new materials, patent transformation and talent cultivation.





- (1) 51 cooperation research projects (32 finished), 60 million cooperation fund, average 300 million direct profit per year;**
- (2) 42 joint patent applications, 5 software copyrights, 7 achievement identifications, 100 high-level research papers, multiple national/provincial projects.**



(3) Trained 700 more talents, held 200 more forums, approved the graduate workstation by Hubei province and the national demonstrative university-enterprise joint training base for graduate students.





(to utilize waste industry water, reduce consumption of new water,)

(Provide technical support to
utilize waste industry water, reduce consumption of new
water, decrease pollution.)

(Confirmed by field test and water
quality analysis, the total amount of reused water increased
from 1500 to 12800 m³/h, saving 100 million tons new water
per year)



人才培养与培训 (Talent cultivation and training)





华中科技大学

谢谢!