

## ...AND OFFER

### • Vocational trainings

#### CTC Kragujevac:

1. CAD/CAM modelling - CATIA
2. Tool design
3. Modelling and optimization of production processes using the FE / FV simulation
4. Project management

#### CTC Rijeka:

1. Simulation of machining processes and rapid prototyping techniques (SolidWorks, SolidCam, RP) - introductory course
2. Product design and development with CATIA
3. Process Quality Improvement Methods

#### CTC Banja Luka:

1. Advanced CAD modelling using Solid Works
2. NC programming and the basics of CAM modelling

#### CTC Podgorica:

1. CAD - ProEngineer
2. Office informatics

### • Practical Placement Programme

In order to improve and acquire new knowledge of students, CTC centers have developed and coordinate a new Practical Placement Programme (PPP) which provides students the opportunity to gain practical experience in industry, in an area that relates to their academic studies, and to further develop their professional, technical and interpersonal skills.

Placement programs have the important role of creating a bridge between education and employment. They help students to optimize their education and subsequently work choice and to better position themselves in the work world. Then the objective of PPP is to facilitate the incorporation of students into the workforce while supplying them with professional experience and skills in addition to theoretical knowledge.

### • Industrial Fellowship Programme

IFP program is intended for the establishment of sustainable partnership between university and industry through hosting industrial fellows (graduates and engineers from industry) in research and academic centers, with the aim to realize advanced targeted trainings of industrial fellows and joint research according to the needs of industrial sponsor.

Flexible IFP duration, organized several times during the year, enables the hiring of industrial fellow on development and innovation projects of mutual interest for academic and industrial partner. The IFP program is an excellent opportunity for technology transfer and involvement of young people in innovative projects that contribute to the exchange of experience, ideas, knowledge, and increase of innovative potential and competitiveness of enterprises.



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Network of  
**Collaborative Training Centres**  
in the Western Balkans



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[www.wbc-vmnet.rs](http://www.wbc-vmnet.rs)



### Vision

To become a strong cooperative center that will initiate, mediate and sustain mutually beneficial partnership between University, that is its members, students and graduates on one hand and enterprises and other partners that support SME sector on the other hand.

### Mission

To develop efficient and effective mechanisms for cooperation between University and enterprises, through the projects' implementation, vocational trainings for enterprises and the unemployed, fellowship programs (Industrial Fellowship Programme - IFP) and student practice (Practical Placement Programme - PPP).

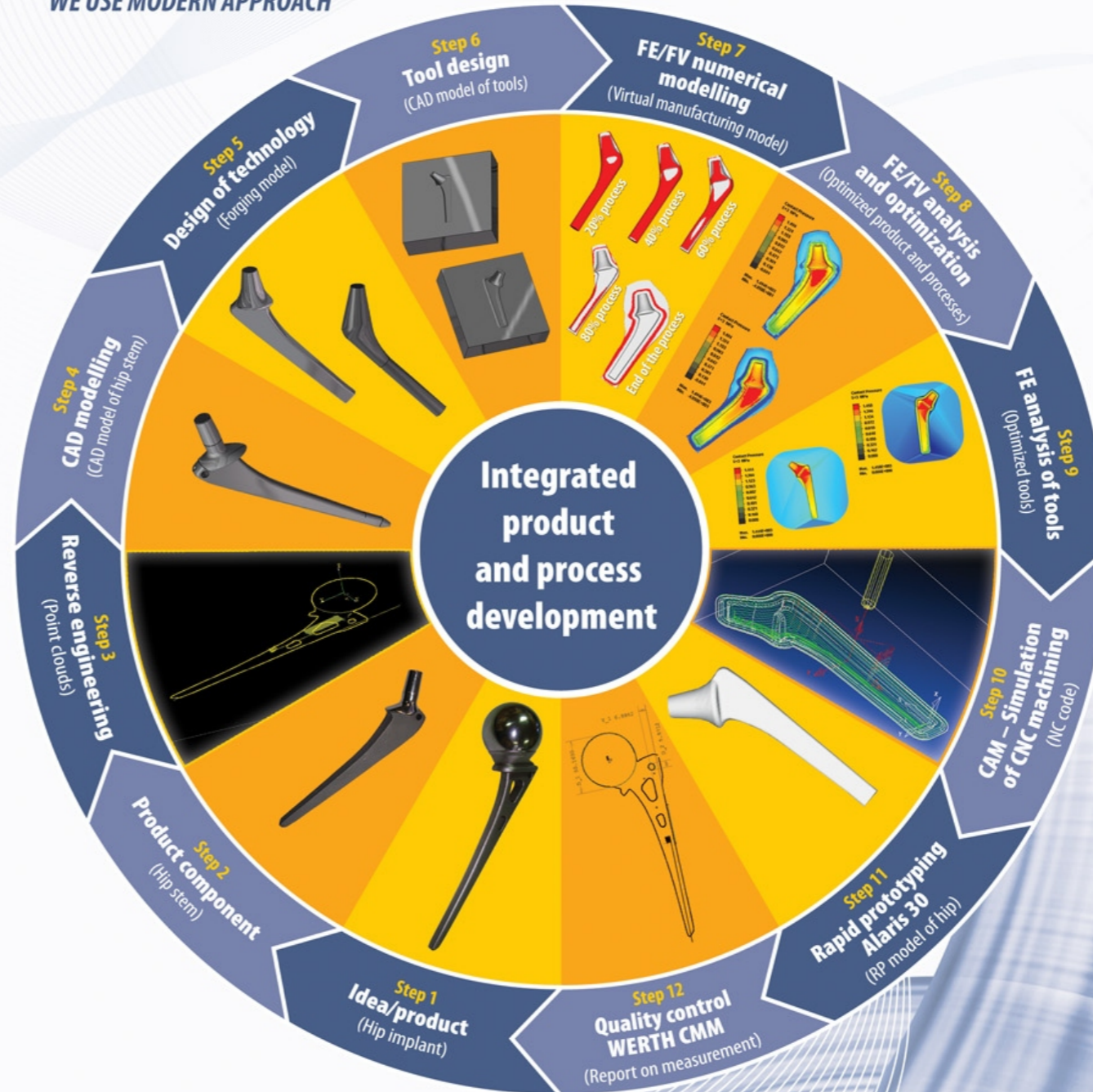
### Activities

- Development and implementation of vocational trainings, seminars and workshops;
  - Coordination of Industrial Fellowship Programme (IFP);
  - Coordination of Practical Placement Programme (PPP);
- Rapid prototyping and reverse engineering applications in integrated product and process development;
  - Virtual manufacturing applications by applying up-to-date FE/FV software;
    - CAD/CAM modelling of products and tools;
  - Quality control and measuring (optical, laser and contact techniques);
    - Training of staff and external experts of CTC Centre;
      - Projects' implementation;
    - Spreading the WBC VMnet network.

### Objectives

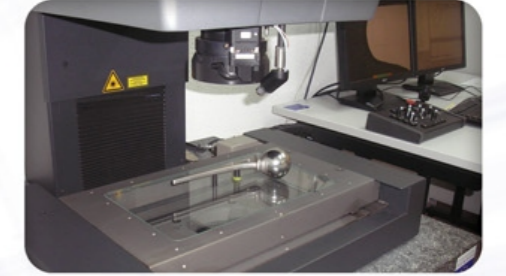
- To establish sustainable links between University and enterprises through the implementation of the WBC Regional model of university-enterprise cooperation;
- To provide services for improvement of existing and development of new products, technological processes and tools for small and medium-sized enterprises;
- To provide quality and useful R&D result, which will launch funding and regular implementation of innovations in enterprises;
- To develop new and modernize existing vocational training programs in accordance with the needs of enterprises and labor market;
- To play an active role in the spreading WBC VMnet network;
- To enable students to gain practical knowledge and skills in the industry;
- To facilitate IFP programme;
- To create opportunities for involvement in a number of international projects.

## WE USE MODERN APPROACH



### Resources

- Multisensor coordinate measuring machine - **WERTH Video-check IP250** (determination of 2D and 3D geometries of parts with very small features with integrated optical, laser and patented fiber contact techniques)
- 3D printer (Rapid Prototyping) - **OBJET Alaris 30** (based on PolyJet technology creates smooth surfaces with complex geometries, small moving elements and fine details of plastic prototypes)



### Software:

CAD/CAM software (3D CAD modelling, CAM modelling with powerful new toolpaths and techniques, NC programming)

- SolidWorks
- ProEngineer
- CATIA
- Mastercam

CAE software (advanced FE/FV software for all bulk and sheet metal forming applications, independent from process temperature, machine used or material processed):

- Stampack
- Simufact

Software for tool design (design and optimization of progressive die from 3D solid model, as SolidWorks add-on)

- 3DquickPress

Virtual reality software (software for design of interactive 3D content and rapid prototyping for virtual reality applications).

- Vizard

CTC offices in Kragujevac, Rijeka, Banja Luka and Podgorica

