2022 SUMMER SCHOOL

27 JUNE - 15 JULY

SCHEDULE:

- *27.06 - 01.07 - design courses for assemblies and subassemblies in the automotive industry, the courses will be held by trainers from ARRK Engineering*
- *04.07-15.07 - 3D EXPERIENCE courses given by trainers from Magic Engineering*

2022 SUMMER SCHOOL

WE ARE ARRK

ARRK GROUP	1948	> 3.000	364 Million €
ARRK Mitsui Chemicals Group	FOUNDATION	EMPLOYEES	ANNUAL TURNOVER
ARRK ENGINEERING	1967	> 1.500	107 Million €

Engineering   Tooling

WE MAKE **IDEAS** HAPPEN

Styling Design   Prototyping   Low Volume Production
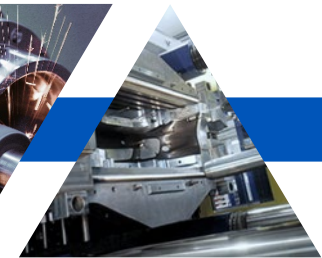
2022 SUMMER SCHOOL

ARRK
Research & Development SRL
Cluj-Napoca
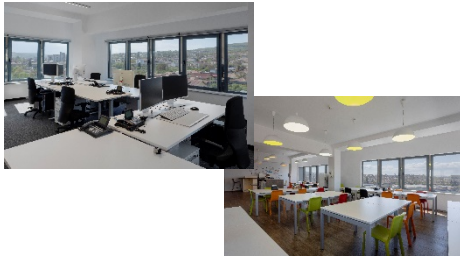
CLUJ-NAPOCA

Overview about our location in Cluj-Napoca

- Founded in 2007

- Involved in global product development actions

- More than 360 employees

- Close cooperation in various projects with a professional team, based in Germany

Main focus of activities:

- Design and CAE & Simulation

- Smaller group of colleagues working in the area of Test & Validation

- Constant development: Electronics & Software area growing

- Marketing support: attending job fairs, career days, collaboration with universities
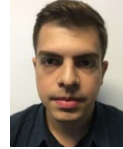
2022 SUMMER SCHOOL

WE MAKE **IDEAS** HAPPEN

ARRK

ARRK ENGINEERING GMBH
Frankfurter Ring 160
80807 Munich
Germany

www.arrk-engineering.com

David Crisan
Development Engineer
Body & Closures

David.Crisan@arrk-engineering.com

Mihael Vele
Team Lead
Body & Closures

Mihael.Vele@arrk-engineering.com

Vlad Hanceanu
Senior Engineer
GD&T - HVS

VladCristinel.Hanceanu@arrk-engineering.com

Amanaloaie Radu
Team Lead
High Voltage Battery

Radu.Amanaloaie@arrk-engineering.com

Csongor Csegezi
Group Lead
High Voltage Storage

Csongor.Csegezi@arrk-engineering.com

2022 SUMMER SCHOOL

MAGIC ENGINEERING

"Engineering can be MAGIC"

➢ **MAGIC ENGINEERING** implements integrated CAD, CAE, CAM and PLM solutions, adapting them to the specific requirements of the clients.

➢ **Pre-sales services consulting:**
- identification of needs;
- product value demonstrations;
- evaluation of alternative best in class solutions;
- optimization of the chosen solution;
- configuration and implementation services;
- business process optimization;

➢ **Post-sales services:**
- training;
- consulting;
- support.

MAGIC ENGINEERING is a leader on the Romanian PLM market, each implementation activity leading to a true partnership.

MAGIC ENGINEERING

Solutions Galaxy

Using the software CAD / CAM / CAE solutions developed by worldwide leaders Software Houses

Implements complex PLM platform

2022 SUMMER SCHOOL
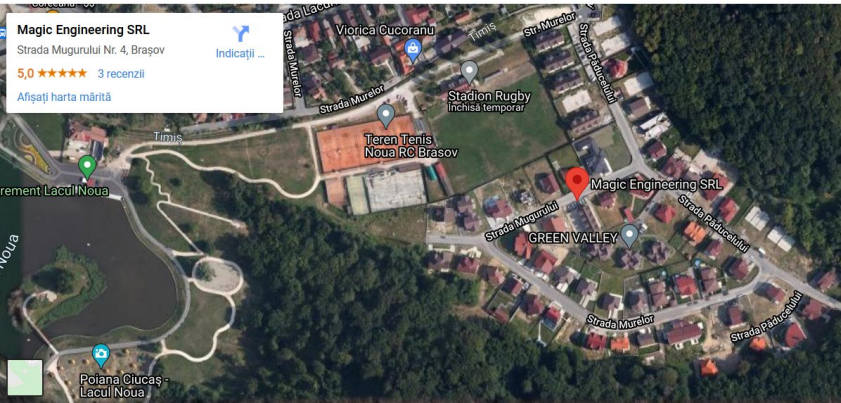
MAGIC ENGINEERING

Brașov**,** Str. Mugurului, Nr.4, Ap.1
Tel: +40 268 337141
Fax: +40 268 337149

Eugen Modrisan

design engineer

Oleg Gundiuc

instructor &
technical sales

magic-engineering.ro

www.linkedin.com/company/magic-engineering

2022 SUMMER SCHOOL - COURSES

Explore the Collaborative Business Innovator Role

In this module, you will learn how to collaborate using the platform's various applications to deploy a single source of truth collaborative environment for better decision making and operations excellence

- Overview Collaborative Business Innovator Role
- Connect with 3DEXPERIENCE ID
- Improve productivity with User Groups
- Foster social innovation with 3DSwym
- Share securely files with 3DDrive
- Deliver a unified experience with 3DDashboard
- Connect data & people with My3DEXPERIENCE
- Connect the dots between Collaborative Business Innovator applications

Explore the Mechanical Designer Role

In this learning module, you will learn the key capabilities of the Mechanical Designer Role to create and manage a complete mechanical design project.

- Overview of the Mechanical Designer Role
- Collaborate using the 3DEXPERIENCE platform
- Navigate through the Product Structure
- Create Surface Geometries
- Design Sheetmetal Parts
- Design Parts in Context
- Design Functional Parts
- Reuse and Modify External CAD Data
- Modify and Simulate Assemblies
- Work with Parametric Design
- Work Concurrently with Designers
- Check the Manufacturability of Parts
- Analyze the Weight of Assemblies
- Create Drawings

2022 SUMMER SCHOOL - COURSES

Transition to the 3DEXPERIENCE platform for Mechanical Designers

This module addresses the needs of Mechanical Designers. It will first teach you how to design a new part with the 3DEXPERIENCE platform, insert the part in a product then position and constrain it. You will learn how to assign material properties and compute weight, then complete a simple drawing. Finally, you will learn how to create a new part version , replace the original part and update the product. More advanced topics will also be covered: they will teach you how to manage complex product structures, create product features, manage catalogs and analyze assemblies.

- Creating New Content
- Creating a New 3D Part
- Creating Engineering Connections
- Calculating the Weight
- Creating a Drawing
- Creating a New Revision
- Master Exercise: Motherboard Assembly
- Managing Product Structure
- Designing In Context
- Working with Large Assemblies
- Creating Assembly Features
- Creating and Using Catalogs
- Analyzing Assemblies
- Master Exercise: Car Front Assembly

2022 SUMMER SCHOOL - COURSES

Practice CATIA Mechanical Systems Design

This module will teach you how to create the architecture of a mechanism using simple wireframe elements and then complete the mechanism by adding 3D representations. You will also learn how to create a more complex mechanism using existing mechanisms, and finally how to animate the result.

- Video: Mechanical Systems Design Overview
- Creating a Mechanism
- Modifying a Mechanism
- Completing a Macro Mechanism
- Master Exercise: Create Motorbike Suspension Mechanism
- Summary: CATIA Mechanical Systems Design Essentials
- Assessment: CATIA Mechanical Systems Design Essentials

Practice ENOVIA Design Review

This module will teach you how to create different slides for various positions of an assembly to create exploded views. You will also learn how to create sections and measures, and export them as parts or drawings. You will also learn how to compare 3D objects and how to create multi-context reviews.

- Video: ENOVIA Design Review Essentials Overview
- Creating and Managing Reviews
- Creating Sections
- Creating Measures
- Comparing Objects
- Creating Multi-Context Reviews

Practice CATIA 2D Layout for 3D Design

In this module you will learn how to create 2D layout views in a 3D model and use them to design the part in the 3D environment.

- Video: 2D Layout for 3D Design Overview
- Introduction: 2D Layout for 3D Design
- Creating a 2D Layout
- Using the 2D Layout Geometry
- Master Exercise: Engine Assembly