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## AUTOMATION

UCM Resita is certified according to ISO 9001: 2008 & 14001: 2004

# AUTOMATION

**Hydro Engineering (UCM Resita's R&D division, operating as an independent company)** offers modern automation solutions for new or under rehabilitation/modernization hydro power plants:

- Automation and control system
- Turbine digital speed governor system
- Hydro unit protection & measuring system
- Communication system
- Unit synchronization
- Common services automation and control system
- Remote control possibilities
- Monitoring & diagnosis for units and for entire power plant
- MV switchgear and HV switchyard protection & measuring system
- Other equipments: > 0,4 kV distribution cabinet for small power houses  
> Power factor correction cabinet etc.



## Our activities:

- Designing, engineering, manufacturing, testing and commissioning complete automation systems for hydro power plants of any type.
- Optimization of the overall system to achieve highest availability and highest efficiency resulting in best cost-effectiveness.
- Integration of automation systems, electrical and mechanical equipment to form a well-functioning plant. Our automation solutions cover all areas, from process interfacing to control-room equipment, including communication to regional control centre.
- Combining digital automation technology with mechanical/hydraulic control elements, protection and excitation systems, low-voltage distribution boards and other auxiliary to form a complete, fully optimized system.
- Combining a wealth of plant engineering know-how with experience in modern digital and network-based automation systems.
- Installation of standard control technology, adding optimization, diagnosis and plant management modules, tailor-made to meet the specific need of hydro power plant.
- Commissioning of the overall system, training of the operating and maintenance staff, supervision and servicing.

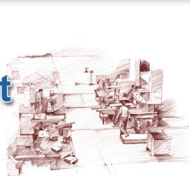
## Other advantages:

- > safety and availability
- > long life and adaptability
- > proven solutions and future orientation
- > standard and flexibility



No.	Power house denomination	Technical data
1	Poiana Teiului HEPP - Romania CHE Poiana Teiului	Kaplan turbine Synchronous generator 2 x 6.8 MVA
2	Çine HEPP - Turkey CHE Çine	Francis turbine Synchronous generator 2 x 25 MVA
3	Slatina HEPP unit 2 - Romania RK HA 2 Slatina	Kaplan turbine Synchronous generator 1 x 13.8 MVA
4	Strejesti HEPP unit 1 - Romania HA1 - Strejesti	Kaplan turbine Synchronous generator 1 X 30 MVA
5	Zetea Small Hydro - Romania CHEMA Zetea	Francis turbine Synchronous generator 2 X 1.5MVA
6	Arcești HEPP unit 1 - Romania HA1 - Arcești	Kaplan turbine Synchronous generator 1 X 30 MVA
7	Kang Krachan HEPP- Thailanda	Kaplan turbine Synchronous generator 1x21,2MVA
8	Bistrita - Prislop - Romania CHEMA Bistrita - Prislop	Pelton turbine Asynchronous generator 2 X 1.2MW
9	Tana HEPP - Merila & Maragua section	Francis turbine Synchronous generator 2x 9.1 MVA, 2 x6.07 MVA
10	Motz & Lavour HEPP - France	Pit-Bulb turbine Synchronous generator 2 x 3.2MVA, 2x 2.75 MVA

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