Universitatea
Ştefan cel Mare
Suceava

UNIVERSITY RESEARCH
FACTS AND FIGURES

WWW.USV.RO

RESEARCH

EXPLORE AND DISCOVER

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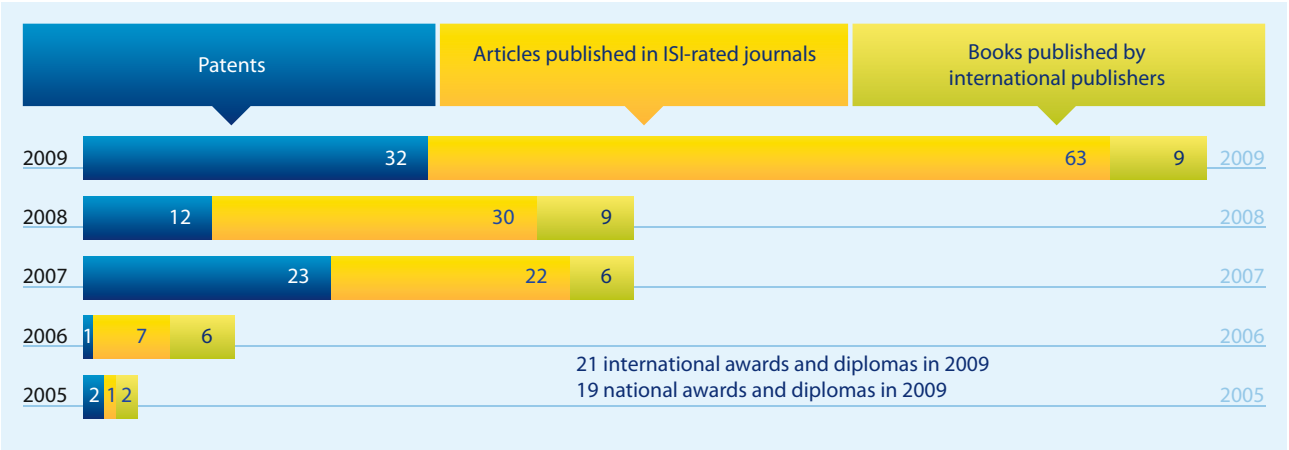
RESEARCH

Research Results - Fast Facts

RESEARCH

→ http://www.usv.ro/research/

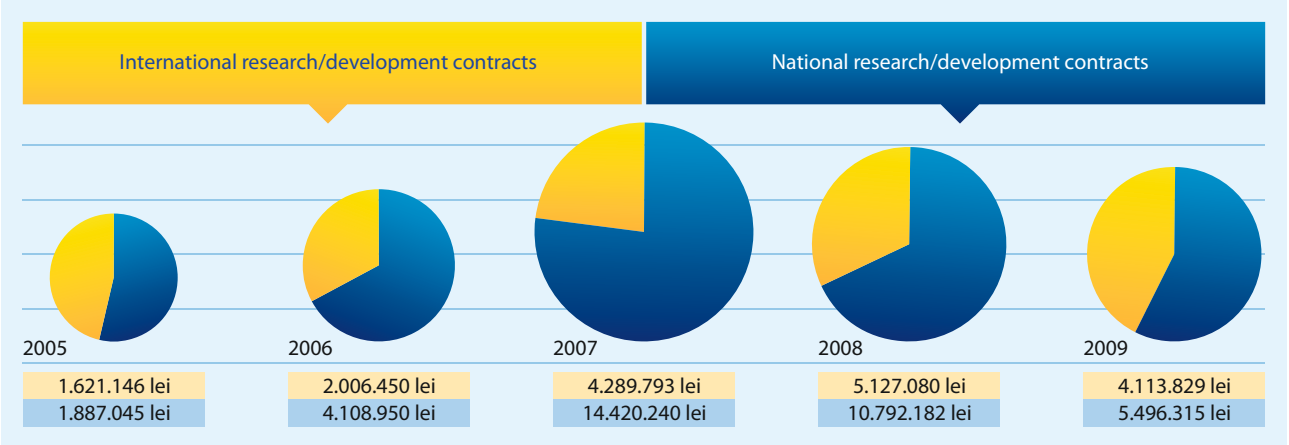
PATENTS, ARTICLES IN ISI-RATED JOURNALS



"Stefan cel Mare" University of Suceava is acknowledged by the Romanian National University Research Council (CNCSIS) as an institution of research-development, a component of the national system of research-development, according to HG 551/2007 Annex no. 1 to Decision ANCS no. 9696/14.07.2008

Stefan cel Mare University of Suceava is rated with a High Degree of Confidence by the Romanian Quality Assurance Agency for Higher Education.

RESEARCH CONTRACTS



2005	2006	2007	2008	2009
1.621.146 lei	2.006.450 lei	4.289.793 lei	5.127.080 lei	4.113.829 lei
1.887.045 lei	4.108.950 lei	14.420.240 lei	10.792.182 lei	5.496.315 lei

RESEARCH CONTRACTS ACKNOWLEDGED BY CNCSIS:

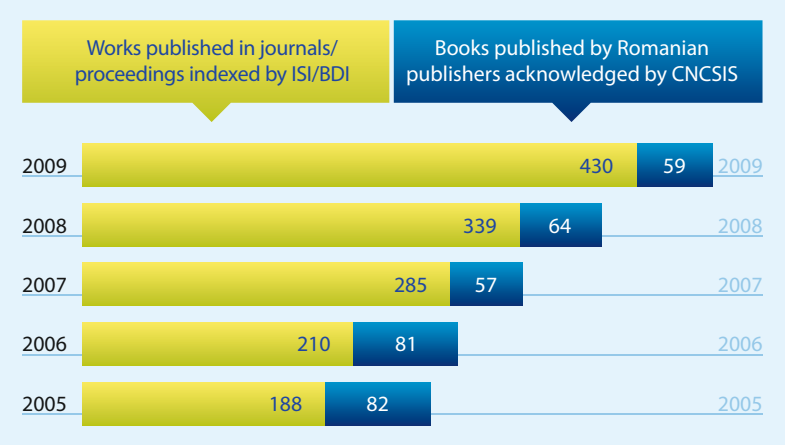
Process Control Systems
Machines, Devices and Electric Drives
Computers
Applied Geography
Interlitteras
Discourse Analysis

OTHER RESEARCH CENTRES IN:

Tribology and Contact Mechanics
Mechanic Engineering, Mechatronics and Management
The Carpathica University Centre of Interdisciplinary Studies
Ethics, Philosophy, Engineering and Society
Food Safety
Business Administration and Management

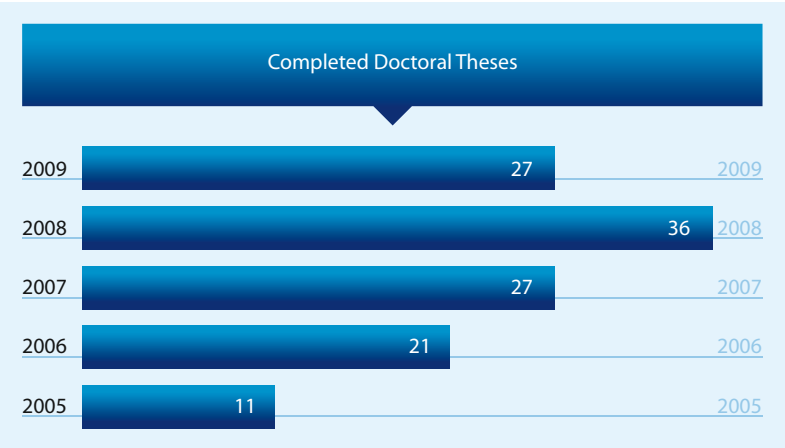
ISI/BDI- INDEXED ARTICLES AND BOOKS

ISI-rated "A" Journal: Advances in Electrical and Computer Engineering
Journals rated "B+":
Journal of Applied Computer Science & Mathematics.
Atelier de traduction.
Annals of "Stefan cel Mare" University of Suceava, in the following fields:
Literature.
Food and Environment Safety.
History.
Economic Sciences and Public Administration.



DOCTORAL THESES

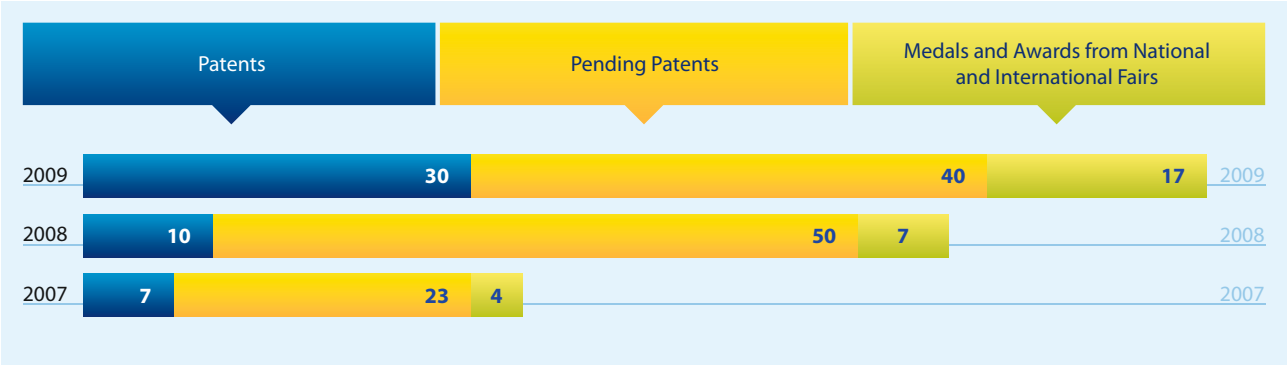
During the period of research and before the public defence of their doctoral theses, the doctoral candidates of the University of Suceava must publish minimum 4 articles related to their field of doctoral research in ISI-rated/ indexed journals/proceedings or in international data bases.
During 1st October 2008- 15th April 2010, the 28 doctoral candidates whose research was financed by POSDRU/6/1.5/S/22 doctoral scholarship project had 123 scientific works published, participated in national and international conferences with 52 presentations and were granted 32 patents.



FIELDS OF DOCTORAL STUDIES:

Business Administration
Computers and Information Technology
Accounting
Economics
Philology
Materials Engineering
Electrical Engineering
Electronic Engineering and Telecommunication
Mechanical Engineering
History
Silviculture

USV - PATENTS, MEDALS, AWARDS



Quality Control Laboratory of Cereals and Bakery Products

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

Taking into consideration that cereal products provide over 50% of humankind's food sources, the research carried out in the Quality Control Laboratory of Cereals and Bakery Products aims to find new ways of superior development as regards raw materials, that may allow both production of food ranges adapted to local specific features and to consumer's taste, and providing superior quality from the point of view of its innocuousness. Also, through our activities we want to insure human resources training, which are able to guarantee safety and quality of end products by applying the modern biotechnologies associated with the new faster analyzing methods.

ACTIVITIES

- Analyses of local crops quality
- Measurement of flours' tenacity, extensibility, elasticity and baking strength
- Determination of moisture absorption capacity of flour of a given consistency
- Selection and improvement of flour plastic quality
- Monitoring dough tolerance and weakening during the kneading process
- Measurement of α-amylases in flours
- Monitoring the relationship between rheological properties and micro structural characteristics of dough

MAIN THEMATICS

• Research concerning higher capitalization of local vegetable resources to get some products with functional food materials role. Due to the main humankind concerns regarding the increase of population health state in general and obesity control in particular, the development of some cereal and pseudo-cereal processing technologies becomes of fundamental importance.

• Research regarding the influence of different types of α -amylases on quality of bread. Our objectives were to study the effects of α -amylase addition on dough and bread attributes and to relate these performance differences to amylolytic mechanisms and to differences between types of amylolytic sources (malt, fungal and bacterial), and, also to see if we could obtain a significant increasing in the area of shelf life extension.

• Evaluation of Mycotoxins impacts on the processing industry The agro-food products are excellent culture media for different molds. These fungi produce mycotoxins that have been found to be highly toxic and carcinogenic for humans and cattle. Even at very low concentrations, chronic effects can occur such as the reduction of fertility and of immune-resistance. Practical strategies to eliminate these mycotoxins from feed and food are required, although some progress is being made at level of individual compound or group of compounds.

MAIN RESEARCH EQUIPMENT

Stereomicroscope

Falling Number Perten

Alveoconsistograph Chopin

SCIENTIFIC PRODUCTION 2005-2010: 14 publications, 3 books, 4 national research grants, 2 international research network ISEKI FOOD 3, and ISEKI MUNDUS, 2 researches grants with local producers

MAIN COLLABORATIONS:

Laboratory of Enzymes et Derivates Romania, Institute of Food Bioresources Romania, Kansas State University, U.S.A., The College of Agriculture and Life Sciences, Iowa State University of Science and Technology, Iowa, USA, Escola Superior de Biotecnologia, Porto, Portugal, Technical University of Moldavia

TEAM

Associate professor PhD Gabriela POP - Head of the research team
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MEMBERS

Associate professor PhD Adriana DABIJA
Lecturer PhD Silvia MIRONEASA
Lecturer PhD Georgiana CODINA

Laboratory for Microbiological Control of Food Products

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

The strategic objectives of Food Products Microbiological Control Laboratory are the following:

- to develop control and prevention strategies for emerging food borne pathogens, thereby helping to reduce the unacceptably high incidence of food borne disease and to improve the competitiveness of the food industry.
- to offer a comprehensive array of analytical tools to identify unwanted microbiological contamination issues.
- the implementation of the knowledge in the modern fermentation concept.

Our laboratory research provides us with the opportunity to bring about innovative methodologies to meet new industry challenges.

ACTIVITIES

- Growth curves;
- Factors affecting growth and survival;
- Inhibition mechanisms;
- Indicators for microbial food spoilage;
- Food fermentations.

MAIN RESEARCH THEMES

Optimization of resuscitation and enrichment of food borne pathogens for rapid detection methods in food diagnostics

As food, due to processing and the preservation techniques, presents non-optimal conditions for microorganisms, the pathogens are stressed or sublethally injured. The aim is to determine the conditions of resuscitation and enrichment of pathogens for detection and conventional microbiological analyses.

Predictive modeling of microbial inhibition and inactivation through lactic acid and pH

In food industry, organic acids are popular preservatives as they are active against a broad spectrum of spoilage organisms and already effective at low concentrations. We investigate the individual effects of undissociated lactic acid and pH on both growth and inactivation.

Use of new decontamination techniques for minimally processed vegetables

Nowadays consumers are looking for fresh, healthy, ready-to-use and additive-free foods with the retention of the nutritional characteristics and safety. The objective is to investigate the potential of different techniques to decontaminate minimally processed vegetables. As vegetables are an important source of vitamins and antioxidants in the human diet, a comparison between the decontamination efficiency and the effect on the organoleptic properties and on the nutritional quality will be made by means of these techniques.

The use of micro-organisms as immobilized biological catalysts

By immobilizing yeast cells on a solid support, high cell densities can be obtained. Thereby, a higher volumetric productivity could be achieved during the fermentation of wort, which, in combination with continuous fermentation, results in a significant decrease of the production time of beer. The objective is to investigate the immobilization process, where the adhesion properties of both the carrier material and the yeast, are being evaluated. Also, the physiology of the immobilized yeast will be studied.

MAIN RESEARCH EQUIPMENT

Laminar flow cabinet for sterile experiments

Fluorescence microscope and video camera incorporated

Biologic microscope and video camera incorporated

SCIENTIFIC PRODUCTION 2005 - 2010: 12 publications, 2 books

MAIN COLLABORATION: University Miguel Hernandez, Spain; Al. I. Cuza University of Iasi, Romania; University of Moldavia.

TEAM

Associated professor eng. Rodica ROTAR, PhD - Head of the research team
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MEMBERS

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Lecturer bioeng. Maria POROCH - SERITAN, e-mail: mariap@usv.ro
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Laboratory for Water Quality

RESEARCH

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

The main objective of the laboratory for water quality is the research of water quality assurance by monitoring material balances, determination of environmental impact caused by water pollution, developing new technologies for water treatment and modern methods for water analysis.

ACTIVITIES

The main activity of the laboratory for water quality is increasing and strengthening research in the specific water quality monitoring, to determine the environmental impact caused by pollution.

In this regard, the laboratory develops and supports research activity and collaboration with the economic field, scientific assistance grants, technical advice and training, postgraduate training of masters and doctoral level, supports advanced interdisciplinary research, cross-border cooperation, initiated and endorses research contracts to the European standards in the field. Laboratory staff also participates in national and international debates on water pollution and rectification.

Atomic Absorbtion Spectrometer

MAIN RESEARCH EQUIPMENT

Specromicroscope UV-VIS-NIR

Atomic Emission Spectrometer with Mass Spectrometer and Laser Ablation

Optical Fiber Miniatur Spectrometer

SCIENTIFIC PRODUCTION 2006-2008

4 ISI indexed papers
1 book
2 research grants
7 patent proposals
3 patents

TEAM

- Professor PhD Sonia GUTT - head of the research team, Phone: 0040 230 520 267, gutts@usv.ro
- Associate professor PhD Rodica ROTAR
- Lecturer PhD Violeta VASILACHE
- Assistant eng. Eufrozina NIGA
- Assistant eng. Alina PSIBILSCHIU

Instrumental Analysis Laboratory

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

By its highly performing logistics, highly qualified staff, as well as its management, the laboratory contributes to observance and compliance with European standards in the food field. As part of the laboratory, covering all problems of food analysis, university and post university training activities, research activities as well as services to the economical environment are carried out. The laboratory main goal resides in its contribution to implement the quality assurance, control and management system into the food production- distribution- consumption chain, aiming mainly to provide population's food safety.

ACTIVITIES

- contribution to increase university and post university training quality according to European standards, to acquire fundamental knowledge in the food field;
- contribution regarding the quality increase of advanced research within the Food Engineering Faculty in order to establish performing partnerships in internal and international scientific projects;
- research on environment impact as a result of food production and consumption as well as of food waste, establishing specific measures on environment protection;

Gas Chromatograph with FID-ECD detectors

- contribution and research on the study of packaging-food-environment interaction;
- research on synthetic sweeteners;
- research on aflatoxins;
- research on Bio-fuels;
- research on the performance increase in instrumental analysis of heavy metal traces in food products;
- the approach of the Food Engineering Faculty to the economical environment by carrying on an ample activity of training, specializing, counselling, technical expertise and disemination of the results obtained by the laboratory;
- transfer of research results within the food products field to the economical and social environment.

MAIN RESEARCH EQUIPMENT

High Performance Liquid Chromatograph (HPLC)

LC-10ADVP Shimadzu.

Highly performing modular apparatus equipped with quaternary pump, diode-array, fluorescence, refractometer, polarimeter, electrochemical, autosampler detectors and data acquisition and processing soft. The chromatograph has an ISO 90001 certificate and model approval from the Romanian Office of Legal Metrology.

Gas Chromatograph with mass spectroscope

(GC-MS) QP 2010 - Shimadzu.

Highly performing mass detector QP 2010 -equipped apparatus with classical ionization standard with electronic impact (EI).

High Performance Liquid Chromatograph

Gas Chromatograph with mass spectroscope

Electronic Balance

The chromatograph allows applications both in classical chromatography (I.D. = 0.25 mm and 0.32 mm), wide-bore columns chromatography (I.D. = 0.53 mm) and fast chromatography (very narrow columns chromatography I.D. = 0.1 mm).

SCIENTIFIC PRODUCTION 2005-2007

3 books and 12 papers published, 4 research grants, participation in 4 scientific sessions, organization of a scientific session, carrying out of an invention proposal

MAIN COLLABORATIONS

Laboratory of Enzymes et Derivates Romania, Institute of Food Bioresources Romania, University of Hohenheim(Germany), Gh.Asachi University of Iasi, Yurii Fedkovici University, Chernivtsy - Ukraine, Techniche Universitate Aalen-Germany, Hohenheim University Germany, Genencor- Danisco Netherlands, Platform for biofuels, BIOCARO Romania.

TEAM

Professor Gheorghe GUTT, PhD, Eng. - Head of the research team

Phone: 0230/216147 int.215 ; E-mail: g.gutt@usv.ro

MEMBERS

Professor Sonia GUTT, PhD, Eng.

Assistant Amelia BUCULEI, Eng.

Assistant Silviu STROE, Eng.

Material Testing Laboratory

RESEARCH

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

The laboratory for materials testing and characterization allows aproaching sequentially and unitarily any problems regarding advanced testing and characterization of metallic and non-metallic materials as well as to estimate environmental impact. By its specific, by staff's scientific competences and its equipment, the laboratory contributes significantly to quality system implementation into industrial goods production, consolidation of research-training-industry partnership, having as main goal the lasting knowledge-based development of society, as well as of a society fully aware of and concerned with environment impact produced by industrial processing of metallic and non-metallic materials.

ACTIVITIES

- As university laboratory it plays an important part in research activities from materials engineering field, in elaborating and characterizing new materials of high technological and exploiting properties.

- The laboratory will be actively involved in current tests that have in view to determine the mechanical and non- mechanical sizes used in order to characterize behaviour in different working regimes of these materials.

- This laboratory assumes important tasks regarding the study of environment impact produced by primary and secondary technologies of metallic and non-metallic materials obtaining and processing, aim within which the instrumental chemical analysis segment has properly developed.

SCIENTIFIC PRODUCTION

26 research grants, 56 Patents, 24 Patents Proposals, 4 books, above 200 scientific papers.

Scientific Research awarded at European Exhibition of Creativity and Innovation.

LISTA DE PRIMIT!!!!!!!

X- Ray Energy Dispersiv Spectrometer

SEM with X-Ray EDX Microsonde

Vickers Microdurimeter controlled by computer

Martens Microdurimeter controlled by computer

TEAM

Professor PhD Georg GUTT - head of the research team; Phone: 0040 230 520 267, g.gutt@usv.ro

MEMBERS

Lecturer PhD Silvia MIRONEASA

Lecturer PhD Violeta VASILACHE

Lecturer Maria POROCH SERITAN

Assistant Siviu STROE

Assistant Traian SEVERIN

Assistant Viorel GHIGUTA

Biofuels Laboratory

RESEARCH

→ http://www.fia.usv.ro/laboratoare

OBJECTIVES

The research carried out in this laboratory aims to:

- increase cereal-to-ethanol output
- use agricultural, wood and biomass waste for methanol production
- use methanol in waste water treatment plants
- increase direct-methanol fuel cells output
- turn the draft resulted from alcohol to good account

ACTIVITIES

-Cereal enzymatic hydrolysis

- Destructive distillation of high cellulose organic wastes
- Acid hydrolysis of wood wastes to produce sugars

MAIN RESEARCH THEMES

-Alcohol output is influenced by the leaven hydrolyzing capacity, therefore the factors influencing the hydrolyzing capacity of enzymes used to obtain bioalcohol as fuel, as well as the optimum enzyme intake and performing combinations, optimum pH of leaven and temperature are taken into consideration. The chemical hydrolysis allows us to compare the two methods and choose the optimum technological conditions for fermentation process;

- To establish optimum conditions for agricultural and wood waste to-biomethanol production
- To study different membranes permeability of direct-methanol fuel cells
- Turning the draft to good account is necessary both for environment protection and revaluation of nutritive substances it contains. Draft proteins and salts are turned to good account for animal feed in the form of supplements, increasing the technological process efficiency. Environment pollution with organic substances from alcohol production plants is reduced to the minimum.

MAIN RESEARCH EQUIPMENT

Computer Controlled Bioreactor

Stereo Microscope

Fermentation Process monitoring with CO_2-Ethanol-O_2 sensors

Computer Controlled Distilling column

SCIENTIFIC PRODUCTION 2005 - 2007

4 ISI indexed papers, 1 Book, 1 research grant, 7 patents

MAIN COLLABORATIONS

Laboratory of Enzymes et Derivates Romania, Yurii Fedkovici University, Chernivtsy - Ukraine, Techniche Universitate Aalen-Germany, Hohenheim University Germany, Genencor- Danisco Netherlands, Platform for biofuels, BIOCARO Romania.

TEAM

Professor Sonia GUTT, PhD. - Head of the research team
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MEMBERS

Professor Gheorghe GUTT PhD.
Lecturer Cristina DAMIAN, PhD, Chem.
Assistant Eufrozina NIGA, Eng.
Assistant Alina PSIBILSCHI, Eng

Unconventional Actuators, Micromachines and Microdrives Research Laboratory

→ http://www.eed.usv.ro/emad/

Unconventional Actuators, Micromachines and Micropower Drives laboratory it's a part of the structure of Research Center in Electrical Machines, Apparatus and Drives recognized in 2004 by National Council of Stiintific Research from Ministry of Education, Research and Innovation.

OBJECTIVES

The laboratory activitie follow the strategy of the Research Center and have the following objectives: specialists forming which can may compete through their calification and performance at enlargement of knowledge frontier; university competitivity development on top qualification market; committal of performance elite forming by line of young teachers.

The research directions which entailed the founding of Unconventional Actuators, Micromachines and Microdrives laboratory relies on the reconsideration of some categories of classic forces developed in magnetic field and electric field or another category of forces: forces based on solid structure deformation under the action of the electric field (piezoelectricity etc.) or under the action of the magnetic field; forces based on solid structure deformation under the action of the heat (thermo-bimetal; memory alloy etc.) and which brought in some prototypes in solar energetic (solar bimetallic engine, solar nitinol engine, solar pneumatic engine etc.); forces based on chemical reactions leading to the achievement of the electrochemical pumps; forces based on hydraulic effects uses. Non-conventional energy supply developments, micro wind turbine dimensioning and power system testing equipment represents new research directions.

SCIENTIFIC RESULTS

The research results were evidenced through:

International and national exhibition awards:

- Monophase asyncronous motor with multiple rotors. Innova, Bruxelles, 2009
- Solar micromotor: Bronze Medal at Salon International des Inventions, des Techniques et Produits Nouveaux, Geneva, 2008
- Solar motor: Gold Medal at International INVENTIKA Exhibition, Bucharest, 2008
- Low speed electric engine: Silver Medal at International Exhibition of Innovations, New Ideas, New Products and Technologies - ARCA, Zagreb, 2008
- Heliotrope: Gold Medal at International ECOINVENT Exhibition, Iassy, 2003

Patents: 39

Patent applications: 200

Books: 5

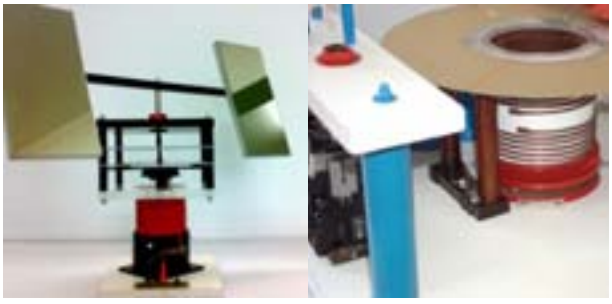
INVENTICA Exhibition

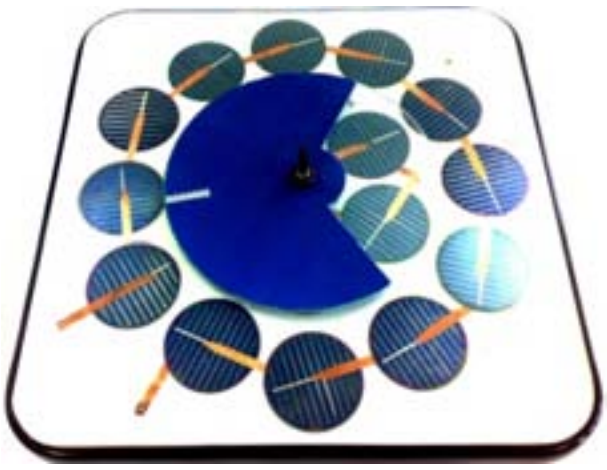
Unconventional Electrical Machines Symposium – ELS2005

International Symposium on Electrical Engineering and Energy Converters – ELS 2007, ELS 2009.

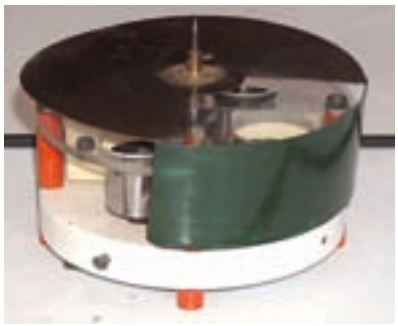
MAIN RESEARCH EQUIPMENT

Computers, video camera, data acquisition boards; frequency converters, software application used for electromagnetic and thermal physics simulations.



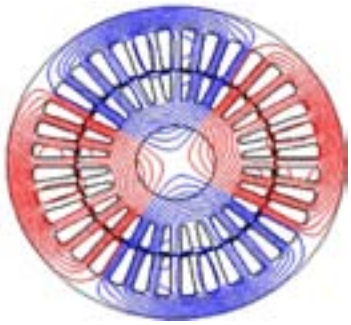


Solar electric engine



Solar bimetallic engine

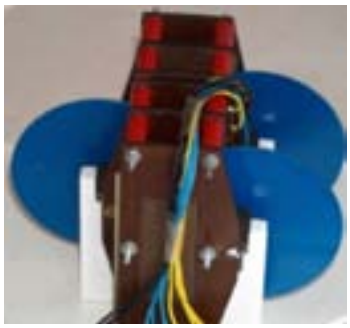
Solar pneumatic engine

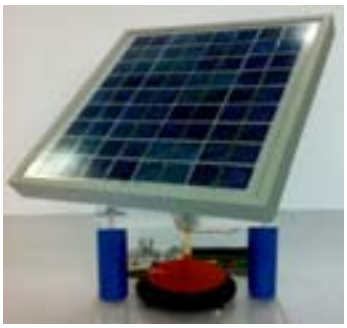


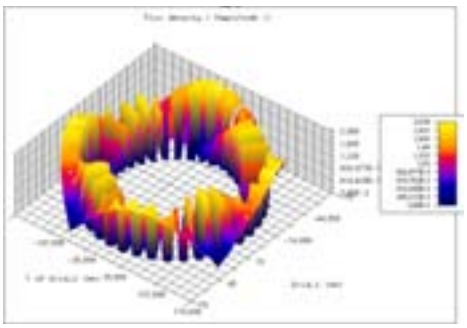
Piezoelectric engine

Vibroengine

Electrochemical pump







MAIN COLLABORATION

Technical University of Moldova, Lille Ghent University, University of Catania, Polytechnic Institute of Porto, Gheorghe Asachi Technical University of Iași, University "Politechnica" of Bucharest, Technical University of Cluj-Napoca, Transilvania University Brasov, Technical University Politehnica Timisoara

TEAM

Professor Dorel CERNOMAZU, PhD. Eng. Head of the research team
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MEMBERS

Permanent staff: 7; Ph.D. students: 4

Fundamental Energetics Research Laboratory

→ http: www.eed.usv.ro/ferl

OBJECTIVES

Challenges of energy systems open new research opportunities in the field. The emergence of new generations of technologies (wind turbines, fuel cells, solar panels, FACTS devices, etc.) makes the power engineering to experiment with new means of production and energy conservation in energy systems increasingly more reliable and "smarter".

Thus, in the fundamental energetic laboratory the research team together with the students, involving in undergraduate, graduate and PhD programs, develop studies in the research mentioned directions.

MAIN RESEARCH EQUIPMENT

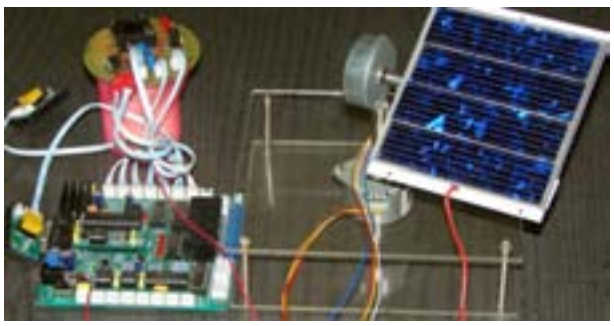
digital luxmeter, electrical networks analyzer, gas detector, InfraCam, DSA Tools Educational Suite (Include PSAT, VSAT, SSAT, TSAT and CDT)

MAIN RESEARCH THEMES

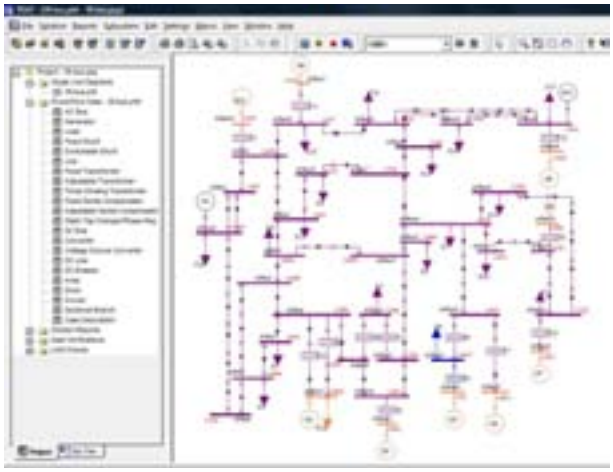
-contributions to the development of non-conventional energy sources
-equipments and devices for testing limiting of load (energy consumption)
-power system testing equipments
-reliability rising solution for power transformers

The research results were evidenced through:

- Gold Medal at International Ecoinvent 2003 Exhibition: Heliotrope
- Bronze Medal at Salon International des Inventions et des Techniques Nouvelles, Iassy, 1992: Heliotrope
- Gold Medal at Salon International des Inventions et des Techniques Nouvelles, Iassy, 1994: Limiting Device
- Gold Medal at with Special Jury Mentions at International Ecoinvent 2003 Exhibition: Solar Engine and Microengine
- Special Prize of "Ştiinţă şi tehnică" and "Tehnium" Reviews: Gas Relay



heliotrope solar convertor



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Lecturer Constantin UNGUREANU, PhD stud., Eng.
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PdD. Students: Niculina POENAR, Nicolae SOREA, Iulian BACIU
http://www.eed.usv.ro/ferl/

MAIN COLLABORATIONS

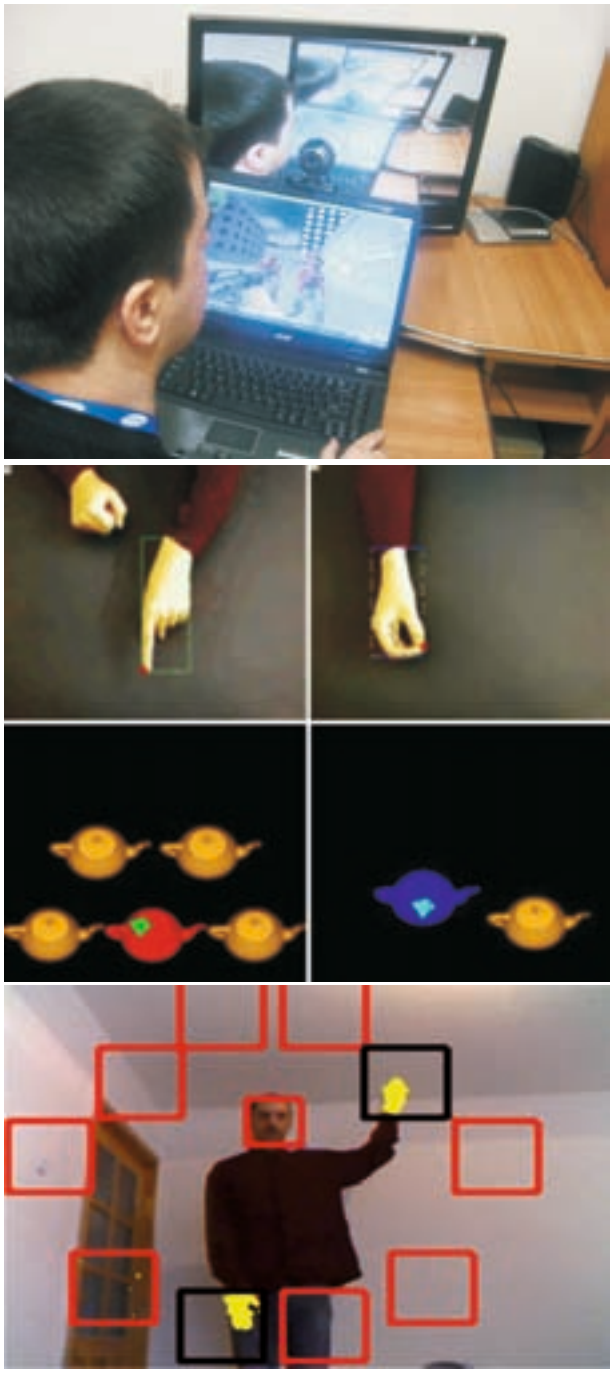
Technical University of Moldova, Universite des Sciences et Technologies de Lille (France), University of Catania (Italia), "Gh. Asachi" Technical University of Iaşi, Polytechnic University of Bucharest, "Transilvania" Technical University of Braşov

Pattern Recognition and Image Processing Research Laboratory

RESEARCH

→ http://www.eed.usv.ro/ccsc/

The Pattern Recognition and Image Processing Laboratory is a component of the Research Center in Computer Science (certified by CNCSIS) at the "Ştefan cel Mare" University of Suceava with research activities being conducted on general pattern recognition and image processing techniques, gesture recognition and human-computer interaction, distributed intelligence and vision-guided robotics.



Gesture-based interaction: head and hand gesture detection and recognition

OBJECTIVES

The Pattern Recognition and Image Processing Lab aims to perform high quality research in pattern recognition, image processing, machine vision, distributed intelligence, and vision-guided robotics. We investigate the use of computers in order to recognize a wide range of objects, to identify high discriminatory features and to design supervised and unsupervised learning algorithms. A number of applications deal with image processing, scene analyzing, robot navigation, automatic surveillance and tracking, face modeling, gesture-based human-computer interaction.

MAIN RESEARCH EQUIPMENT

Desktop computers, high quality video cameras, data gloves, cluster of about 1 Tflops.

MAIN RESEARCH THEMES

Gesture recognition

Natural gestures as a means of human computer interaction have the great advantage of being the ideal interface as a natural, efficient and intuitive means of communication. Posture and motion recognition applications were developed in order to consider gestures as interface for human-computer interaction. An interesting application made by the PhD student Ciprian Ovidiu UNGUREANU, aims to control the mouse pointer by head gesture recognition. The challenge is to recognize the head movements from a video camera installed in the front of an operator in order to control the mouse pointer on the screen in the case of Windows based systems. It is proposed an integrated approach to real-time detection, tracking and gesture recognition of human head, which is intended to be used for controlling the mouse cursor of a desktop system as hands free or no-touch interaction. Research is also being conducted on developing and controlling mobile robots via gesture-based interfaces.

Gesture recognition research was conducted in the frame of 131-CEEX project, INTEROB.

TEAM
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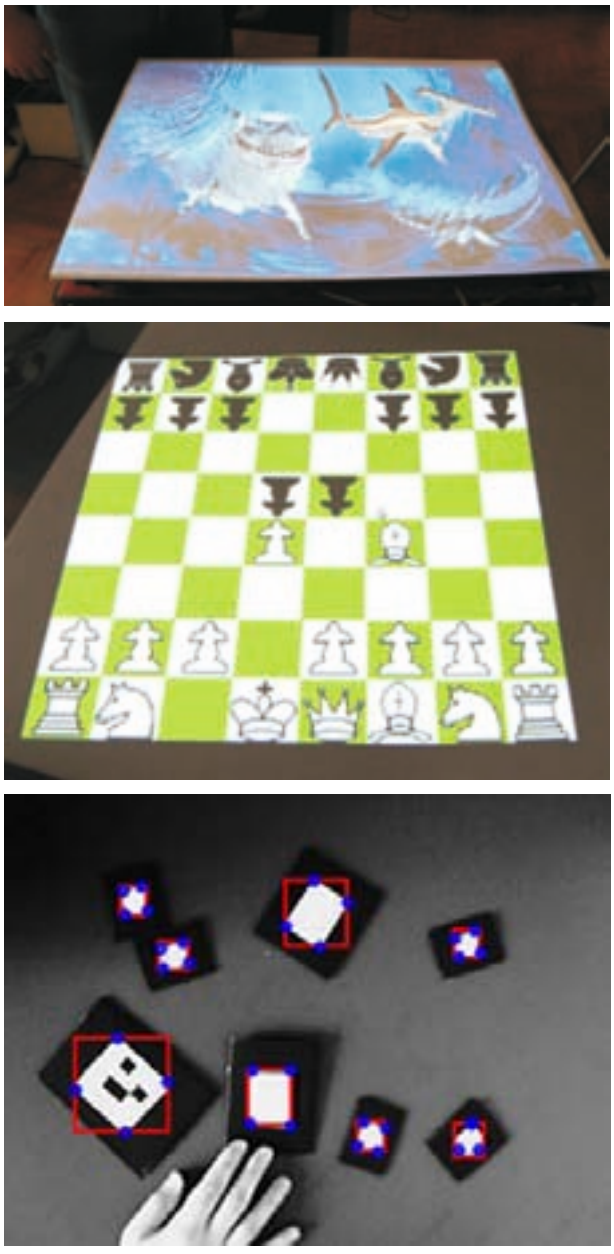
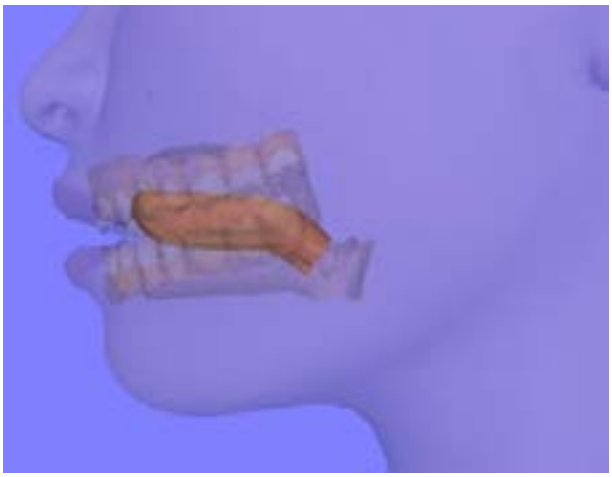
Professor Adrian GRAUR, PhD Eng.
Asociated Professor Cristina TURCU, PhD Eng.
Lecturer Remus PRODAN, PhD Eng.
Lecturer Tudor CERLINCĂ, PhD Eng
Lecturer Radu-Daniel VATAVU, PhD Eng
Lecturer Mirela DANUBIANU, PhD Eng.
Lecturer Ovidiu SCHIPOR, PhD Eng.
Lecturer Adina BĂRÎLĂ, inf.
Assistant Felicia Belciug GÎZĂ, eng.

Interactive surfaces

Research is being conducted on interactive surfaces and enhancing current tabletop settings with computer vision and sensor-based systems. We are currently considering applications in the domain of enhanced human-computer interaction and computer games industry. A new interaction metaphor was introduced in the form of context-based interaction.



Interactive surfaces and context-based interaction



Logopaedic 3D model

Automatic recognition of dyslalia affecting pre-scholars

Dyslalia is a speech disorder that affects pronunciation of one ore many sounds. The researches convert through a full system that targets interdisciplinary research having as main objective the development of methods, models, algorithms, with regards to the elaboration of a complete system addressing the therapy of dyslalia affecting pre-scholars, in a personalized and user centered manner. There is a powerful preoccupation at the European level in helping the people with speech disorders; that is why the EU Quality of Life and Management of Living Resources program has been developed. We developed an integrated system (56-CEEX, TERAPERS project) actually tested by Interschool Regional Logopaedic Center of Suceava.

Specific skills: pattern recognition, image processing, computer vision, distributed systems, human-computer interaction.

Collaborations: Laboratoire d'Informatique Fondamentale de Lille (U.S.T. Lille), Politecnico di Torino, KAHO Sint Lieven, Institute for Work and Technology Gelsenckirchen, Faculty of Automation and Computers Iasi, Faculty of Informatics Iasi, Politehnica University of Bucharest National Center for Information Technologies (Polytechnic University Bucharest).

Electromagnetic Compatibility Research Laboratory EN 17025/2005 accredited laboratory

→ http://www.emclab.ro

The Electromagnetic Compatibility Research Laboratory - EMCLab (www.emclab.ro) is a component of the SISCON Research Center (www.sisconreseach.ro).

OBJECTIVES

Electromagnetic Compatibility Laboratory - EMCLab is located in Stefan cel Mare University of Suceava campus, in a modern new building. The laboratory is accredited by RENAR Bucharest, in conformity with SR EN ISO/CEI 17025:2005 international standard, for electromagnetic compatibility tests on information technology equipments, electrical and electronic equipments used in residential, commercial and industrial areas, 2.4 GHz broadband transmission equipments, communication networks equipments, Bluetooth devices, Short Range Devices and Radio Frequency IDentification (RFID) equipments (the complete list of equipments may be found on the web-site). The laboratory started as a CEEX 2006 research project, the implementation team being formed by specialized personnel, well trained and with a lot of experience in the accredited field.

We help engineer the future in relevant research areas by:
- Using collaboration among universities, industry and government;
- Conducting research on challenges in providing customers with reliable, economical and environmentally-acceptable products and projects;
- Educating the next generation of engineers;
- Assuring the continuing education for production engineers.

MAIN RESEARCH EQUIPMENT

We have a state of the art equipment inventory, including:
- Anechoic Chamber / 3m Fully Compliant Anechoic Chamber TDK
- EMI Test Receiver - Rohde & Schwarz ESU 26
- Microwave Signal Generator - Rohde & Schwarz SMR 20
- Power Meter - Rohde & Schwarz NRP 26
- Solid State Broadband Microwave Amplifiers - Amplifier Research and OPHIR
- Hybrid / Horn Log Periodic Antennas
- Control System Interface - TDK SI-300
- Radiation and Emission Test Software - TDK RF Solutions
- Compact ESD Simulator - dito / EMTEST
- Portable spectrum analyzer (NARDA-STS)

For the full version of our equipments list and their main characteristics, please visit the Equipments section of our web page.

MAIN COLLABORATION

EMC Laboratory ICMET Craiova - Romania, Faculty of Electronics and Telecommunications Iasi - Romania, Politehnica University Bucharest - Romania, Instituto Politecnico do Porto - Portugal, Universite des Sciences et Technologies de Lille - France, Katholicke Hogeschool Gent - Belgium

MAIN RESEARCH THEMES

The laboratory is involved in research projects related to test methods improvements, impact of electromagnetic radiation on humans and other live organisms, and biological effects of EMF. We are opened for collaboration in the EMC field with production partners, universities and research institutes for research projects. We assist electrical and electronic equipments producers and importers by offering technical support for modifications to the design of the equipments under test - in the case the measured values are not between the limits the standards, including pre-compliance tests.

TEAM MEMBERS

Professor Eugen COCA, Ph.D., Eng. - Head of the research team

SCIENTIFIC CONSULTANTS:

Professor Valentin POPA, Ph.D., Eng.
Professor Adrian GRAUR, Ph.D., Eng.
Professor Vlad CEHAN, Ph.D., Eng. (T.U. Iasi)

PERMANENT STAFF:

Assistant Aurel CHIRAP, Eng.
Assistant Gheorghe SIMIONIUC, Eng.
Assistant Georgiana BUTA, Eng.
2 Ph.D. students

Radio identification devices and short range devices laboratory

→ http://www.emclab.ro/srdrfid.php

OBJECTIVES

The interests of this laboratory are teaching and research in the field of Radio Identification Devices and Short Range Devices. The main objectives are represented by the insurance of a specific and particular environment for research activities, training of the newest generations of engineers and the guarantee of a permanent development of the perspectives regarding both research and didactic activity.

MAIN RESEARCH EQUIPMENT

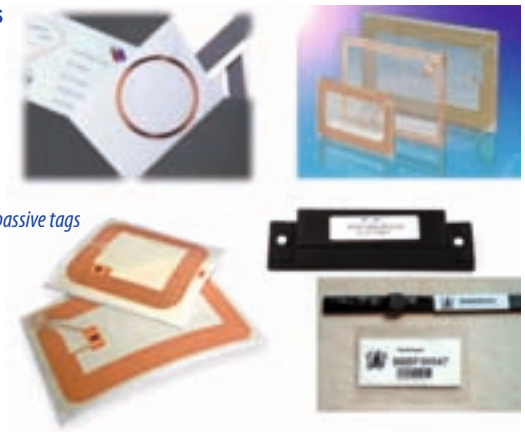
RFID readers and tags, test and measurement equipments, computers.

MAIN RESEARCH THEMES

The laboratory provided a favourable environment for developing the research activities, reflecting at the same time its real potential of performance and research. The Radio Identification (RFID) Devices and Short Range Devices (SRD) laboratory is furnished with the latest technology to support research, a variety of testing / measuring SRD and RFID equipments is available in laboratory. The two main components involved in a RFID system are the transponder (tags) and the RFID reader.

Test and measurement equipments like oscilloscopes, spectrum analyzer

RFID Tags



Active and passive tags

and other. The tests performed in this laboratory are made in conformity with the equipment specifications and the European standards concerning the RFID and SRD technical characteristics and test methods.

The two components involved in a Radio Frequency Identification (RFID) system are the transponder (tags attached to the object) and the RFID reader (Interrogator). An RFID transponder is a microchip that is attached to an antenna. They come in a wide variety of shapes, sizes and forms and can be read through most materials with the exception of conductive materials like metal and water. Passive tags are generally smaller, lighter and less expensive than those that are active and can be applied to objects in harsh environments, are maintenance free and will last for years. These transponders are only activated when within the response range of a reader. The RFID reader emits a low-power radio wave field which is used to power up the tag so as to pass on any information that is contained on the chip.

Active tags differ in that they incorporate their own power source, where

RFID Readers

For different frequency ranges and different types of application

as the tag is a transmitter rather than a reflector of radio frequency signals which enables a broader range of functionality like programmable and read/write capabilities. An RFID reader contains a module (transmitter and receiver), a control unit and a coupling element (antenna).

The reader has three main functions: energizing, demodulating and decoding. Readers can be fitted with an additional interface that converts the radio waves returned from the RFID tag into a form that can then be passed on to another system like a computer or any programmable logic controller. Anti-Collision algorithms permit the simultaneous reading of large numbers of tagged objects, while ensuring that each tag is read only once.

MAIN COLLABORATION

Instituto Politecnico do Porto - Portugal, Universite des Sciences et Technologies de Lille - France, Katholicke Hogeschool Gent - Belgium, Universita degli di studi Catania - Italy

TEAM

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E-mail: valentin.popa@usv.ro

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Professor Adrian GRAUR, PhD, Eng.
Professor Dan Alin POTORAC, PhD, Eng.
Professor Vlad CEHAN, PhD, Eng. (T. U. Iasi)

Permanent staff:

Assistant Aurel CHIRAP, Eng.
Assistant Gheorghe SIMIONIUC, Eng.
Assistant Georgiana BUTA
1 PhD student

Laboratory for High Performance Computing (HPC)

RESEARCH

→ http://www.eed.usv.ro/gridnord

OBJECTIVES

Developing research in the field of High Performance Computing applied to Pattern Recognition and Artificial Intelligence. Creating a powerful Grid node to be interconnected with other GRID's.

MAIN RESEARCH ACTIVITIES

The laboratory is motivated by the need of developing and improving new methods of computing high quantities of data using parallel and grid systems. The main domains of interests are:

- Complex calculus for Pattern Recognition and Artificial Intelligence,
- High complexity calculus necessary to solve the acute problems concerning the environment and natural resources saving,
- The possibility of real development and testing of middleware applications and grid technologies,
- Interconnection with other Grid networks,
- QoS in Distributed and Parallel Systems.

MAIN LABORATORY EQUIPMENT

The Data Center consists of 2 IBM Clusters and auxiliary installations.

1. IBM Cluster BladeCenter QS22/LS22 PowerXCell 8i 3.2 Ghz (the same architecture as number 1 in the Top 500 of the Supercomputers in June 2009):
- 48 blade servers QS22 with 96 processors PowerXCell 8i CellBE processors 3.2 GHz
- 8 blade servers LS22 with AMD Opteron processors
- interconectare internă: Infiniband pentru date şi Gigabit pentru management
- 7 TB storage capacity
- the hybrid architecture's computing power in double precision (proved by Linpack) is 6.53 TFlops

2. IBM Cluster BladeCenter HS21, Xeon quad core:
- 28 blade servers with 56 Intel Xeon processors quad core at 2.33 GHz
- storage capacity 3.5 TB
- High speed interconnectivity (optical fiber link)

The equipment is installed in the Data Center of the High Performance Computing Laboratory of the Faculty of Electrical Engineering and Computer Science, University "Ştefan cel Mare" Suceava.

MAIN COLLABORATIONS

University "Politehnica" – Bucharest
Technical University „Gh. Asachi" – Iasi
University „Al. I. Cuza" – Iasi
Ecole Polytechnique de Lille (Polytech'Lille)

RESEARCH TEAM

Prof. dr. eng. Ştefan Gheorghe Pentiuc – Team Leader
Prof. dr. eng. Vasile Găitan
Lecturer Dr. eng. Remus Prodan
Ph.D. Students
eng. Ungurean Ioan
eng. Gherman Ovidiu
eng. Crăciun Elena Gina
eng. Rusu Ionela

URL: www.eed.usv.ro/gridnord
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Laboratory for Research of Hysteretic Systems

→ http://www.eed.usv.ro/condishyst/

OBJECTIVES

The Laboratory for Research of Hysteretic Systems is a component of the Systems and Processes Control Research Center (www.sisconresearch.ro) which is accredited by the Romanian National University Research Council. The interdisciplinary research of the laboratory is aimed at providing a pertinent analysis of hysteretic systems with direct relevance for data storage nanotechnology and microwave engineering.

MAIN RESEARCH ACTIVITIES

The laboratory was founded in 2008 motivated by the need for reliable alternatives to the current paradigms of data storage and processing technologies approaching their fundamental limits, as well as by the pure scientific interest in the physical behavior of nanostructures and in the mathematical complexity of the related problems. The main research interests are:

- Stochastic aspects of hysteresis
- Noise in spintronics and semiconductor devices
- Smart antennas for localization and communications
- Nonlinear spin dynamics in confined magnetic structures
- Multiscale analysis, modeling, and computation
- Phase transitions in spin-crossover compounds

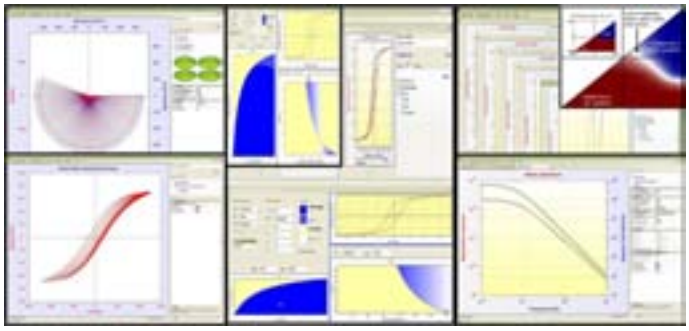
The laboratory research is funded by the EU Framework Program 7, Romanian National Program II and the EU POSDRU.

The research results have been disseminated in 7 ISI journal articles and 15 conference presentations during 2008-2009.

MAIN LABORATORY EQUIPMENTS

- 14 computer workstations and 10 portable computers
- Scanning tunneling microscope
- Diode-Pumped Solid-State Laser Kit
- Antenna Training and Measurement System
- Microwave Technology Training System
- Signal and noise generators
- Oscilloscopes and spectrum analyzers
- Simulation and Data Analysis Software

For additional information, collaboration proposals or site visits please contact us at (+4)0745 013 448 or dimian@eed.usv.ro .



RESEARCH TEAM
Assistant professor Mihai DIMIAN, PhD, Team Leader

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Octavian Manu
Florentin Ursuleanu

UNDERGRADUATE STUDENTS
Constantin Lefter
Lucian Cojocariu
Andrei Avîrvarei
Daniel Condrea
Dorin Antonovici

MAIN COLLABORATIONS
Florida State University (USA)
University of Versailles (France)
Max Planck Institute (Germany)
Institute for Metrology (Italy)
Al. I. Cuza University (Romania)
KaHo University Gent (Belgium)
University College Cork (Ireland)
University of Naples (Italy)
University of Maryland (USA)
Howard University (USA)
University of New Orleans (USA)

Tribology Laboratory

RESEARCH

ACTIVITIES

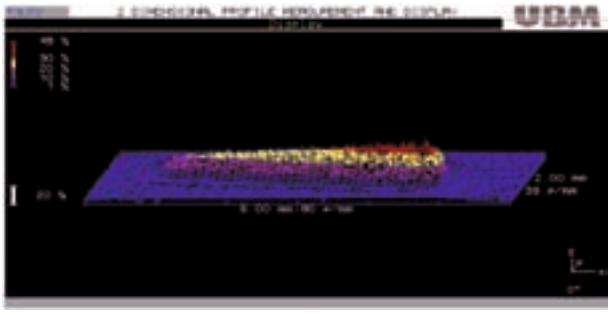
The Tribology Laboratory was setup at the University of Suceava in 1978. The first research activities carried out involved elastohydrodynamic traction as phenomenon and application in traction drives and rolling contact fatigue. Many original test rigs were conceived and build to assess the effect of various factors upon EHD traction and the effect of traction upon contact fatigue.

These results led to more than 10 design versions of EHD traction drives, four of which were applied in Romanian industry. After 1985, realizing that considering the EHD contact as a black box cannot lead to progress, the research effort was slowly shifted towards the understanding of physical phenomena which govern the shear behavior of EHD oil films. Starting from quantum mechanics and involving thermodynamics, statistical physics and physical chemistry, a new scientific domain was established, called Physics of lubrication.

The research group advanced theoretical explanations for shear behavior of EHD oil films, which are validated by extensive experimental work. Naturally, due to the availability of personal computers, Contact Mechanics became a new field of interest both as theory and experiment.

MAIN RESEARCH EQUIPMENT

Laboratory space: more than 120 square meters in a newly refurbished building. Main apparatus: 2 AFMs (atomic force microscopes), 2 laser profilometers with spare laser heads, 1 spectrometer, 1 photo-stress analyzer, strain gauge measurement instruments, digital oscilloscopes, signal generators, high speed video-camera, video-cameras, digital photo-cameras. Test rigs: 15. Computers: 20.



3D plot of reflectivity of the gel solidified in a finite length line contact, eccentrically loaded

MAIN RESEARCH THEMES

The Tribology laboratory produced many scientific tribological research novelties in the following fields:

A. CONTACT MECHANICS

Behavior and optimization of conformal contacts for uniform contact pressure; - Evaluation of the effect of inner circular concavities in plane contacts; Proposal of a new, more correct, optimization criterion for conformal contacts;

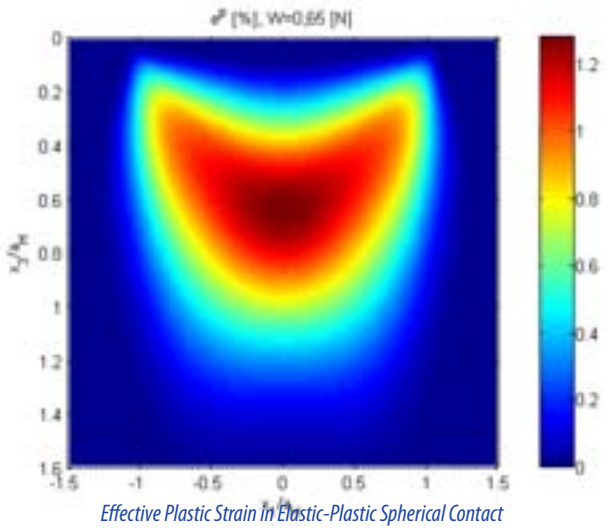
A new experimental method to measure accurately contact area by laser profilometry in a contact model made of a metal punch pressed against a sapphire window;

A new experimental method to assess contact pressure between real surfaces by measuring the reflectivity of a gel layer solidified in the contact;

Establishing a direct correlation between second order polynomial surfaces and resulting contact pressure;

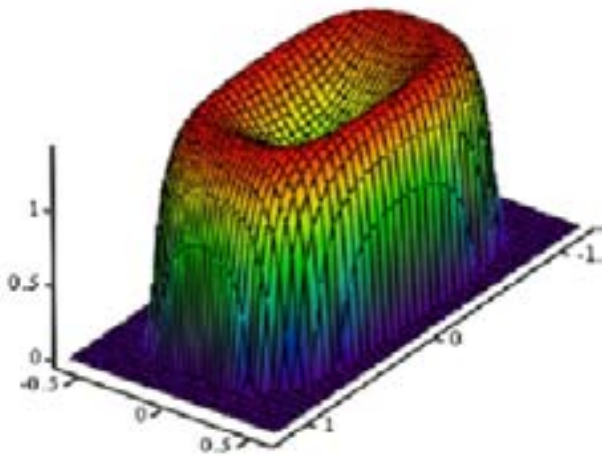
Theoretical design of circular and elliptical contacts between bodies bounded by high order polynomial surfaces to get a centrally flat pressure surrounded by a zone of decreasing pressure;

Investigation of rough contacts in the elastic-plastic domain;



Effective Plastic Strain in Elastic-Plastic Spherical Contact

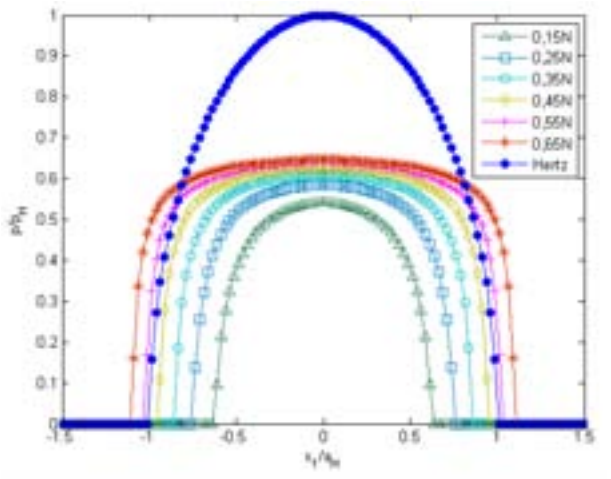
Investigation of dynamic viscoelastic contacts; Optimization of micro-contacts seeking both the load capacity and electrical resistance;



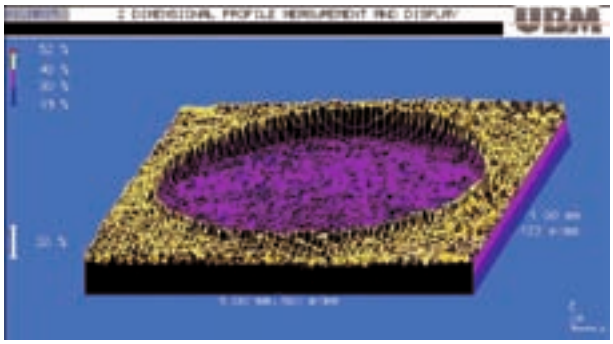
Pressure distribution in fourth order polynomial surface contacts

B. TRIBOLOGY AND NANOTRIBOLOGY

A new physical model for the shear viscosity of molecular liquids subjected to EHD conditions, including the piezo-viscous coefficient; A new theoretical model for solid-like properties of molecular liquids in EHD



Pressure Distribution in Elastic-Plastic Spherical Contact

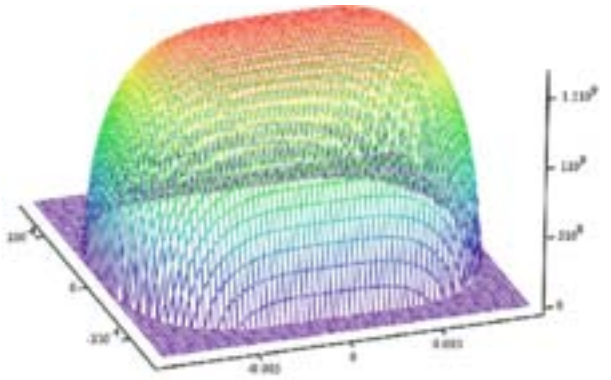


3D plot of reflectivity in a circular contact

conditions (shear modulus and limiting shear stress);

Experimental study of high pressure oil compressibility; Experimental study of traction properties of Romanian lubricating oils;

Theoretical and experimental assessment of the effect of oil plastic shear



Improved pressure distribution in tapered roller contact

upon HD and EHD lubrication; Theoretical and experimental investigations in nano-elastohydrodynamic lubrication;

Experimental investigation of oil film thickness in impact tests;

Theoretical explanation of rolling friction coefficient by the energy losses and experimental validation of this proposal;

Experimental assessment of the degree of metal fatigue by hysteretic measurements;

Controlled slipping clutches with visco-magnetic liquids;

Finite dimensions combined journal bearings; The hysterezis of biological solids; Behavior of bioarticular contacts.

SCIENTIFIC PRODUCTION AND PUBLICATIONS OF THE LABORATORY

During the last five years the members of the laboratory published:

- ISI indexed papers: 5; COMPENDEX indexed papers: 33; CNCSIS indexed papers: 137; National conferences works: 97; Books: 7.
- The laboratory organizes (since 1980) the International Conference VAREHD (15 editions);
- The laboratory edits the journal ACTA TRIBOLOGICA; 16 PhD degrees awarded in Tribology in the laboratory; 13 national grants; 4 international grants.

MAIN COLLABORATIONS

International collaboration with: Imperial College London, INSA of Lyon, University of Poitiers, Queen Mary and Westfields College London, Trinity College Dublin, Cranfield University.

TEAM

Head of research team: Professor Emanuel DIACONESCU,
PhD, Eng., Corresponding member of the Romanian Academy; Head of the research team
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Members: Professors: 4; Readers: 2; Lecturers: 5; Assistants: 2; PhD students: 5. (Of these: 2 ASME members, 1 member of International Tribology Council, 1 member of ASME International Contact Mechanics Committee, 1 member of ASME International Micro and Nano-Tribology Committee, 1 reviewer at ASME Tribology Journal, 1 reviewer at Tribology International; 1 reviewer at 2 Elsevier journals.)

Universitary Laboratory of Advanced Manufacturing Technologies for Metal Cutting

ACTIVITIES

The laboratory is involved in technical and scientific research for the industrial field including the whole product development cycle, beginning with the very concept of the product and its designs, throughout its prototyping, till production planning and automation and it is also preoccupied in establishing contacts with different kind of national or international partners (universities, firms, scientific research centers, CAD/CAM/CAE software providers, et. others). The laboratory activities are the ones related to the manufacturing of mechanical components including process and component design, mechanical systems design, metal cutting technologies, modern processes and techniques, elaboration of CNC programs for different kinds of components, product development, product life cycle management and maintenance of manufacturing and production systems. It also assumes important tasks in developing new representations and mathematical models and process analyses for different metal cutting manufacturing processes.

Background

The initiative for establish this laboratory dates from 1990 when in The University of Suceava develops its first doctoral studies. Till then, an important number of research projects with national and international partners were realized. The main areas of theoretical and experimental researches of the laboratory's staff referred to the modeling, optimizing and analyzing of the high speed machining processes (turning, milling and drilling). We have a great partnership with an local branch of a Belgian firm, SC SIDEM SRL, with which we did some experimental studies regarding the possibilities of obtaining smooth surfaces by high speed turning of treated steels.

Over the last years the laboratory was equipped with the last generation equipments that can allows us to overcame even the most up-to-date expectations in the area of mechanical control and dynamic analysis of the cutting processes, measure different process variables, virtual manufacturing engineering design, CNC machining. The experience that we have in the field of CAD, CAM and CAE is certified by our partnership with Siemens ADA Computers. We have been their ambassador in the since 2006.

OBJECTIVES

Apart from its responsibility to its students, the department also plays a positive role in advancing local industry as being involved in research, training and technology transfer, in the scope of modern production. In concordance with the need of the manufacturing environment to overcame the client expectations, we effort to satisfy their need to exploit developing technologies, advanced manufacturing processes and significant practical `hands on´ experience with commercial-level software and CNC programming skills. The main goal of the laboratory is to to provide inter-disciplinary knowledge, attributes and skills necessary for applying the principles of advanced manufacturing systems within the manufacturing industry. Based on the competence and experience of the laboratory's staff and its specific research equipments we have the capabilities required to devise and develop innovative and cost-effective manufacturing solutions and also offer manufacturing performance analysis, system optimization and product design.

One of the main objectives of this project is related to the affiliation of the national researches from the field of advance manufacturing to the European research community, by forming a team with interests in this area, technological transfer to the industry and by establishing partnership with international laboratory and research centers with similar activities.

MAIN COLLABORATIONS:

- Institut National des Sciences (INSA Lyon) Lion- France;
- AGH University of Science and Technology Krakovia - Poland;
- Instituto Politécnico de Lisbon - Portugal;
- Katholicke Hogeschool Gent - Belgium;
- Université Claude Bernard Lyon 1 – France;
- Fa. KUKA Roboter Augsburg -Germany

TEAM

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Professor Nicolae BANCESCU, PhD, Eng.
Constantin FILOTE, PhD, Eng.
Calin CIUFUDEAN, PhD, Eng.
2 Ph. D students

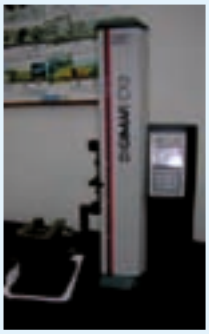
Permanent Staff

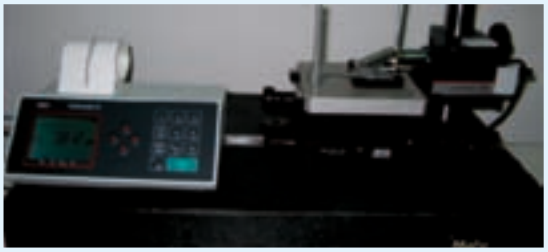
Assistant Aurel CAZACU, Eng.
Assistant Iulian CAZACU, Eng.
Assistant Dumitru NADEJDE
2 students

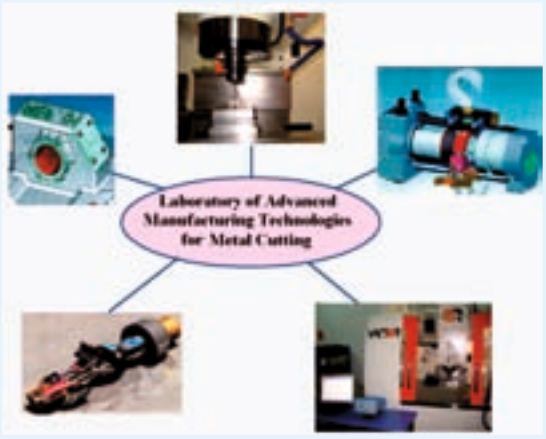
RESEARCH

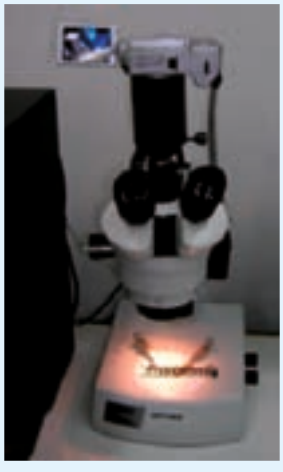
MAIN RESEARCH EQUIPMENT

- VICTOR -55 vertical milling machine;
- 3-Component Dynamometer Kistler 9257B;
- Roughness measuring instrument Perthometer M2;
- 2D measuring instrument Digimar Cx2;
- Portable measuring instrument for temperature Testo 845;
- Optical metallographic microscope with digital camera;
- Different measurement instruments with USB connections;









Research Center of Applied Geography (CCGA) Department Of Geography

→ http://atlas.usv.ro/www/pagini_profesori/radoane/m_radoane.htm

OBJECTIVES

The Research Center of Applied Geography has been recognized and authorized by the National Council of Scientific Research in Academic Education since 2005, grouping researchers in physical and human geography, chemistry and geology from the Ştefan cel Mare University of Suceava and the Agency of Environment Protection Suceava.

The research performed within this center focuses on theoretical problems and practical applications regarding: environmental geomorphology, natural and anthropic hazards, aspects of the changes of geographical landscapes, topoclimatology, natural resources, mountain landscapes, human impact on the geographical environment, geographic information systems (GIS), remote sensing, and geovisualization.

The researches can be applied in the administrative management of the degraded fields, in the reclamation work on the rivers and lakes, in the ecological reconstructions, and land sustenable uses.

MAIN RESEARCH THEMES

Hazards and Risks

Both natural and human hazards are taken into consideration, analyzing their effect in time. The studies focus on: the irrational use of lands, artificial lakes silting and their effects on the environment, models of gully development, experimental researches in the small catchments, the problem of sediment delivery ratio, river channel changes, measurements of sediment magnetical susceptibility, drawing maps for different types of risks (geological, geomorphological, hydrological, climatical etc.).

The Dynamics of Geographical Landscapes, GIS and Planning

The main topics in this section is related to the environmental history of the geographical landscape, where the climate global change and human factor play an important part in the evolution of the geographical landscape. Taking this into consideration, we may say that we are interested in the following aspects: the emphasing of the threshold effect in the landscape development, in case of rivers, the environematal history for the last 140 years, with special view on the human impact, environmental diagnosis on the basis of the global sediment dynamics, optimization of the projects of degradaded land mitigation works, the influence of dams in relief dynamics, the geostatistical analysis of the river bed facies, geographical mapping using advanced technics (especially, GIS technics), hillslope models, hydro-geological maps, other effects caused by the anthropic impact on the environment components (river gravel explotation, environmental effect of ice jams, amplasament studies for the small hydropower etc).

Environmental Studies

RESEARCH

A special attention is paid mainly to the effect of ore exploitation upon the environment in Suceava County and in the Siret drainage basin. The different perimeters for the mechanisms and the dynamics of the processes that can influence the environment are monitored. A special activity was related to the improvement and extension of the European Fish Index and on the effect of the ice jams along the Bistrita River and its tributaries. The soil, water, air and rock samples complete the information obtained from different areas and help us find solutions regarding environment protection.

SPECIAL RESULTS

4 Awards of the Romanian Academy, national and international prestige in the fluvial geomorphology, hillslope stability, reservoir sedimentation, sediment yield modelling.

SCIENTIFIC PRODUCTION 2005 - 2008

5 books, 4 ISI articles, collaboration to Soil Erosion in Europe (John Wiley and Sons), Dams in Geomorphology (Elsevier), publishing of one yearly journal, organizing of the national symposium entitled Environment Quality and Land Use.

TEAM

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COLLABORATION

Geography Department of Al. I. Cuza University Iaşi, Geography Department of Durham University and of Southampton University, UK, Geography Department of the Bucureşti University, Geography Department of Babeş-Bolyai University, Hydrotechnical Department of the Technical University of Iaşi, Biology Department from Bacau University, Biological Research Center from Piatra Neamț, Research Center for Soil Erosion from Perieni.

INTERNATIONAL AND NATIONAL PROJECTS 2002 2005:

1 international project in the FP6 Programme, 12 national projects, researching contracts with several economical agencies.

SPECIFICAL SKILLS:

geomorphological mapping, geographical base data, graphical representations and interpretations, geographical data processing using the statistical analysis, grain size analysis, geotechnical analysis, digital data representation, GIS models development, spatial analysis techniques, understanding of and appreciation for the interactions between the human and natural world, ability to conceptualize spatial relationships for problem solving.

The "Carpathica" University Centre of Interdisciplinary Studies

RESEARCH

→ http://atlas.usv.ro/www/carpathica

OBJECTIVES

CUCIS focuses its research on:

- developing complex interdisciplinary studies concerning the past, present and future perspectives of the area that comes under analysis;

- studying the linguistic, cultural, ethnic, political and social identities and borders. This research is a part of the national and European programs and projects (multiculturalism, tolerance, inter-ethnic and inter-confessional collaboration etc);

- organizing the before-mentioned phenomena into databases;

- the exploration of the ethno/cultural, linguistic, political, confessional and social identities and borders in the Carpathian area.

- developing and maintaining relationships with national and international institutions, both governmental and non governmental, for the purpose of carrying out the scientific objectives of CUCIS.

ACTIVITIES

The city of Suceava is located in north east Romania, east of the Carpathians. During the past two centuries, the region was a part of the Austrian Empire and was the scene of some of the events and processes that took place in Central Europe.

The Carpathian Mountains are a natural element that served as a geographical border, as well as an area of connections and interferences among different cultures and peoples. In Romania, there is still not enough research dealing with the complex evolution of the populations from the Carpathian territory, the phenomena of cohabitation, collaboration and competition, the cultural and spiritual influences, the ethno/linguistic traditions and particularities, as well as its political and economical characteristics.

The Carpathica University Centre of Interdisciplinary Studies (CUCIS) investigates the multitude of factors and phenomena that affected the past of the nations from the Carpathian region.

The Carpathica University Centre of Interdisciplinary Studies from the Department of History and International Relations has as main objective the multi-, trans- and interdisciplinary investigations (history, archaeology, historical demography, sociology, cultural history etc.) of the Carpathian region (the areas adjacent to Romania, Ukraine, the Republic of Moldova, Poland, Hungary, Slovakia, the Czech Republic) and of its interferences with the surrounding parts.

MAIN RESEARCH EQUIPMENT

The logistic support of the Centre is provided by the Archaeology Laboratory, The Laboratory of Auxiliary Sciences of History, The Laboratory of Integration and European Studies and the Regional Laboratory of Preservation and Restoration (the latter is affiliated to the Museum of Bucovina, in Suceava).

Researchers can benefit there from modern office machinery, subscriptions to various publications in the field, as well as international databases.

MAIN RESEARCH THEMES

CUCIS ensures the necessary support for carrying out some PhD themes, for a master's degree and academic degree, while providing favourable conditions for the development of the necessary research abilities of future specialists in the field of human sciences.

SCIENTIFIC PRODUCTION:

Among the high-ranking accomplishments, a few scientific studies published in the last 3 years by famous reviews and Publishing Houses deserve special mention:

Florin PINTESCU, Considerations regarding the military Moldavian-Polish cooperation in the period of the Moghila dynasty (1595-1616), in the "Review of History of Moldavia", Kishinev, no. 1-2 (61-62), 2005, pp. 99-114.

Ştefan PURICI, Harieta MARECI, Crina Cristina CAPOTĂ, Vasile VESE, Frontiers and identities: an Approach to the Last Fifteen Years of Romanian Historiography, in Frontiers and Identities: Exploring the Research Area, Pisa, 2006, pp.175-208.

Dinu BALAN, Integration or Assimilation: Ethno-cultural Frontiers and the (De)Construction of Jewish Identity during the 19th Century in the Romanian Lands, Pisa, Edizioni Plus Pisa University Press, 2007, pp. 189-203

Harieta MARECI, Ştefan PURICI, *Under Pressure for Change: Nation State Building and Identity Mutations in Modern Romania (1866-1890)*, in *Imaging Frontiers, Contesting Identities*, ed. Steven G. Ellis and Luda Klusáková, Pisa, Edizioni Plus - Pisa University Press, 2007, 175-188.

Florin PINTESCU, Ethnical and Professional "Frontiers" in the Cities in Transylvania (16th - 18th Centuries), in Cities in Regions and Nations, ed Luda Klusáková and Laure Teulières, Pisa, Edizioni Plus -PisaUniversity Press, 2008, p. 153-167.

MAIN COLLABORATIONS

The Carpathica University Centre of Interdisciplinary Studies is in active cooperation with the Yuri Fedkovych National University of Chernivtsi, the Bucovina Institute of the Romanian Academy and Bukowina-Institut from Augsburg (Germany).

CUCIS is open to collaboration with any specialized institutions from neighbouring countries and beyond, for the purpose of carrying out its objectives.

The members of the centre are involved in the development of various national and international projects, financed by CNCSIS and the European Commission. Consequently, historians from Suceava participated in FP-6 and Erasmus programs:

- Creating Links and innovative Overviews for a new History research agenda for the Citizens of a growing Europe, contract no. 006164, European Commission FP-6, contract manager Ştefan Purici, period of development 2005-2010.

- Creating Links and innovative Overviews to Enhance Historical Perspective in European Culture, European Commission, Erasmus program, contract manager Harieta Mareci, period of development 2006-2008.

- Creating a New Historical Perspective: EU and the Wider World, as a proposed new 3 year project, Erasmus program, contract manager Harieta Mareci, period of development 2008-2011.

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RESEARCH

Discourse Analysis Research Centre Suceava (CADISS)

RESEARCH

→ www.litere.usv.ro/cadiss/

OBJECTIVES

The main research directions are:
- Discourse analysis
- Textual linguistics
- Communication sciences

The Discourse Analysis' Research Centre Suceava (CADISS), coordinated by Professor Vasile DOSPINESCU PhD and Professor Sanda-Maria ARDELEANU PhD concentrates its activity around a field of large interest and perspective for the scientific research, namely Language Sciences.

ACTIVITIES

The research activity of the Centre members is materialised in the following activities and publications:

- The ANADISS biannual journal (ISSN 1842-0400, cat. C, CNCSIS, cod 856, www.litere.usv.ro/cadiss), published at the University Publishing House, Suceava, since 2006.

- The organisation of significant scientific manifestations (The Annual International Seminar "Text, discourse, communication", which has provoked, since its first edition in 2006, the interest of several renowned specialists in the field of Language Sciences from Romania and abroad, benefiting from the financial support of the Romanian Board of Education ; round tables, workshops);

- The initiation, coordination and participation at important national and international projects, among which is worth mentioning the project of translating into Romanian the works of several French linguists, through a collaboration between the Armand Colin and Institutul European publishing houses, with the financial support of the French Embassy in Romania.

MAIN RESEARCH THEMES

The fundamental research themes of the Centre are:
- Text, discourse, communication
- Intertextuality and linguistic creativity
- Corpus linguistics

During 2005-2013, the research activity of the Centre will be organised around the following themes which have a major interest for the development as well as for the integration of the Romanian scientific community into the international one:
- Political communication and discourse
- The semiotics of didactic discourse
- Didacticity in mass-media discourse
- The semiotics of media discourse
- Linguistic imaginary

MAIN COLABORATION

In what regards the regional and international expectations and impact, it can be appreciated that the scientific activity of the CADISS members is directed towards a number of interdisciplinary fields, extremely significant for the current academic life, as well as towards the promotion of constant collaborations with specialists and similar research centres from the international academic communities (Discourse Analysis Centre from Rouen, University of Paris XIIe, University of Montpellier III, University of Bordeaux, University of Toulouse - France, University of Montreal, Sherbrooke University - Canada) with a view to successfully implement and valorise the results of investigating Discourse Analysis in the public space (politics, administration, media).

SCIENTIFIC PRODUCTION

TEAM

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The INTER LITTERAS Research Centre

→ http://www.litere.usv.ro/centrul de cercetare inter litteras/index.php

INTER LITTERAS

HISTORY AND AIMS

The INTER LITTERAS Research Centre was founded in January 2005 and validated by the CNCSIS Evaluation Commission in April 2005; it brings together academics and researchers from philological branches of learning, including Romanian Language and Literature, Modern Languages and Literatures, and Translation and Interpretation Studies. The Centre consists of 38 members from the University of Suceava. The Research Centre Coordinator is Mrs. Muguraş CONSTANTINESCU, PhD, Professor.

The aim of the INTER LITTERAS Research Centre is to promote fundamental and applied research in the area of literature, language and translation viewed as both unitary fields and complementary subfields of knowledge. Any evaluation of linguistic phenomena makes implicit or explicit use of literary studies to the same degree as any interpretation of literary texts entails the study of linguistic aspects. This mutually dependent relationship is also inherent to the study of phenomena and facts related to translation theory and practice.

OBJECTIVES

The Centre has the following objectives:

- to develop fundamental and applied research in the specified fields of knowledge;
- to focus on its members' various scientific interests in similar research areas with the definite aim of creating a resourceful and renowned group of researchers;
- to initiate partnerships with Romanian and foreign universities and related professional associations;

MAIN RESEARCH THEMES

The broad-spectrum research topic for the period 2005 – 2010 is entitled Metamorphosis of the Text and has the following subtopics:

I. FROM SOURCE TEXT TO TRANSLATED TEXT
Coordinated by Muguras Constantinescu, Henri Awaiss
II. CONTRASTIVENESS IN TRANSLATION
Coordinated by Gina Măciucă, Ioan Oprea, Sabina Fînaru.
III. METAMORPHOSIS OF MYTH with the following directions:
a. Mythical Characters (The Ogre and the Witch, etc.)
Coordinated by Muguraş Constantinescu, Claudia Costin
b. Man and Myth
Coordinated by Claudia Costin and Oana Covaliu.
c. Francophone Cultural Areas (such as: Maghreb; Quebec; Antilles; Eastern Europe and Balkan authors) which aims at studying the diversity of the world-wide Francophone phenomenon from a historical and cultural perspective.
Coordinated by Elena-Brandușa Steiciuc and Cristina Drahta.

A permanent research topic – closely related to the MA on the Theory and Practice of Translation organized by our Faculty – is The Poetics/ Poetry of Translation, best illustrated by the editorial board of the journal Atelier de Traduction and its collaborators from more than 30 universities from all over the world.

Editing the collective volumes:

- Ogres et sorcières - mythologies et réécritures, Coordinateurs : Muguraş Constantinescu, Claudia Costin, Editura Universităţii Suceava, 2008.
- Du local à l'universel. Espaces imaginaires et identités dans la littérature d'enfance (coordination Muguras Constantinescu, Jean Foucault), Editura Universitatii Suceava, 2007.
- Panait Istrati – sous le signe de la relecture, Coordinateurs : Muguraş Constantinescu, Elena-Brânduşa Steiciuc, Cristina Hetriuc, Editura Universităţii Suceava, 2008.
- Les funambules de l`affection. Maitres et disciples, (Muguraş Constantinescu, Valerie Deshoullieres), Presses Universitaires Blaise Pascal, Clermont-Ferrand, 2009.

TEAM

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PhD stud.Constantin TIRON
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PhD stud.Stan Cristina (HETRIUC)
PhD stud.Dima Oana (VĂRVĂREANU)
PhD stud.Florina CERCEL
PhD stud.Năforeanu Briana (BELCIUG)
PhD stud.Irina-Daniela LULCIUC

Research Centers of Faculty of Economic and Public Administration

MAIN RESEARCH THEMES

FSEAP scientific research is based upon research programmes financed from national and international funds. Among most important research projects are:

1. Interdisciplinary research for active economic-financial strategies design in extreme risk events. Natural hazards and technological accidents, acronym PROSTRACT (www.prostract.usv.ro)

2. Integrated framework of financial-economical analysis and modeling of the governmental intervention in the case of the terrorism, acronym SMEFIP (www.smefip.usv.ro)

OBJECTIVES

These two PN II projects represent further researches of the other two pilot projects initiated in 2006 and financed by CEEX governmental funds. Beside this, the themes of these projects underlined research proposal in FP7 competition. The purpose of these projects is to create, for the first time in Romania, an Advanced System for the Management of Crises and Disasters which is peremptorily necessary for Romania which could hardly manage the flood crisis of 2005-2008 and extremely necessary in the case of producing of terrorist attacks. This will allow the development and the creation of systems for ensuring the efficient management of crisis situation and the interventions in the event of disasters, systems of detection, warning and alert. The project focuses on the management of the risk in the event of natural catastrophes (risk with major damage, associated to natural disasters) and terrorism, as well as on the modalities of financing the losses caused by these phenomena. Multidisciplinary researches and the creation of new models, methods and software will allow to solve national priorities in the field of the management of the extreme risk events and to obtain segments of the scientific market for national research-development. This is necessary for the participation at the European CDI programs (FP7) or at the programs of other national organizations. We consider that the research which is to be done fits among the European priorities and the future collaboration with European partners is possible.

ACTIVITIES

- Analysis of the present stage of research in the field of crisis management resulted after producing of natural disasters and terrorism. Creation of historical databases on Romanian example concerning natural disasters, technological accidents, and terrorist attacks. Impact analysis over critical infrastructure and territory fitting.

- Designing of specific models and software that could apply in assessing, managing and financing extreme events (natural disasters and terrorism).

- Comparative analysis of pilot methods and systems for monitoring and establish of the floods effects through PPI models. Projection of the optimal ways of governmental intervention in order to obtain economic-financial protection of the critical infrastructure.

- Analysis of the strategies framework and selection of the instruments for risk transfer, and for risk financing also, associated to the asymmetrical extreme events support activities for capitalization of knowledge and innovation elements of research to potential users.

- Projection of public-private action partnership for reduction the consequences of the natural disasters, technological accidents, and terrorism.

- Connection to networks of European research.

3. Multidisciplinary research concerning the development of innovation technologies and of financial system management with the support of advanced structural and functional structure, acronym SSFA (www.ssfa.usv.ro)

OBJECTIVES

This project contains multidisciplinary researches for the projection of the innovational technologies and the financial systems management from the emerging markets using the method of structural and advanced functional synthesis (SSFA).

The project proposes the achievement of theoretic and applicative researches with the help of SSFA, important for Romania because of the impact on the economic increase, on the work places and on the competitiveness in the context of the European integration. These are useful, in the process of investment management and optimization of active and complex portfolios management, having impact on the researches in the field.

The project proposal comes to complete the real necessity of knowledge in this domain; as more as the research necessity in this domain comes to cover a space that almost does not exist in the specialty literature in our country. We consider that the research that is about to be undertaken fits in the European priorities and it is possible a future collaboration with external partners.

ACTIVITIES

- Studies and researches concerning the impact of neoclassic theories over present innovation financing technologies.

- Multidisciplinary researches in domain of neoclassic theory adaptation to new competitive paradigms, through innovations implementation.

- Theoretic and applicative researches in SSFA domain

- Analytic and numeric methods in SSFA approach

SCIENTIFIC RESULTS

The main results of these researches are: 15 ISI papers, 34 papers in journals indexed in international databases, and case studies published in international publications.

Research activity results can be used by other universities, research centres, government stakeholders, local public authorities, public institutions and ministry involved in specific activities, financial brokers, banks, insurance operators, investment funds, portfolio management operators, stock exchange markets, financial and capital markets, counselling operators.

MAIN COLABORATION

Academy of Economic Studies Bucharest; Institute of National Economy, Romanian Academy, Bucharest; National Defence University „Carol I" Bucharest; National Institute for Research and Development in Informatics Bucharest; University of Bucharest; University of Oradea.

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Forest Biometry Lab

RESEARCH

→ http://www.silvic.usv.ro/biometrie

OBJECTIVES

The practical training and the research within the Forest Biometry Lab within the Forestry Faculty began in 1993 under the trust of the subject with the same name from the syllabus.

At the beginning, there was formed a core of teachers, graduates and students which had as their main objective the endowment of the lab with dendrometrical equipment and the research on some case studies regarding the accuracy of the measuring techniques and at the forest structure analysis.

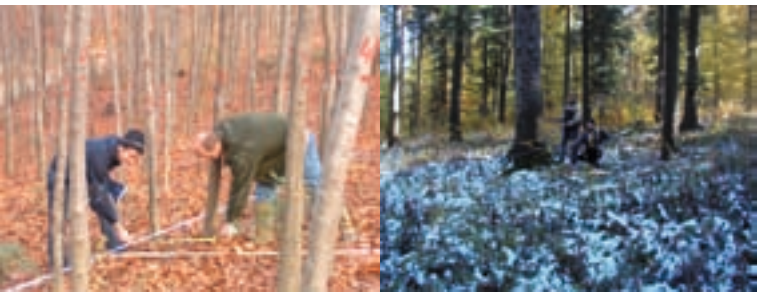
Otherwise, among the basic objectives of the teaching and research activities one can count:

- The assimilation of the modern biometric characteristics analysis techniques of the trees and stands, the evaluation of their accuracy level and the denotement of the improvement and its accuracy as well as indicating the possibilities of their accuracy improvment;

- The cognition of the manner of functioning and structure of the natural forest and cultivated ecosystems, view the fundament of the sylvicultural techniques;

- The implementation of a system of permanent experimental plots in representative stands from the north - east of Romania, for the study of their structure and growth process;

- The evaluation of the biodiversity at specific and ecosystemic level, especially regarding the study of the structural diversity of the forest ecosystems;



Positioning and pursuance of the experimental plots

MAIN RESEARCH EQUIPMENT

There is the permanent interest for the endowment with modern dendrometric equipment and software, as well as the extension of the data base by the supervision of the experimental plots already set and the settlement of new ones. The lab has the Field map informatical system for collecting the data from the experimental plots by means of GPS techniques, electronic hypsometer of high precision Vertex Haglof, Digitech Mantax Haglof electronic calipers, ultra-sound distance measuring systems, WS 3600 electronic weather stations, sampling drills for auxology and dendrocronology, specialized software.

MAIN RESEARCH THEMES

SUCCESSFUL ACHIEVEMENTS

The basic activity consists in the presentation, for the students' endowment, of real cases, of all the evaluation methods of the biometric components of the trees and the stands, of the most important quantification methods of the forest ecosystems organization and functioning manner.

The research activity is being maintained mainly, by the thematics solved within the doctoral dissertations, as:

- Auxological researches on the experimental plot, in order to reveal the aim of the silvicultural cuts on the trees and stands growth;

- Researches regarding the impact of the windthrowns in Norway spruce stand, with the quantification of the main risk factors;

- Fundamental researches of the cognition of the structuring and functioning particularities of the natural forest ecosystems, with the identification and the cognition of the ecological processes in order to elaborate growth models;

- Researches regarding the efficiency of the application of the sylvicultural systems;

- Dendrochronological researches, of dendroclimatology in general;

- Researches of the structural diversity evaluation within the natural and cultivated forest ecosystems;

Together with these themes within the doctoral activities, there are contracted research themes regarding the main sylvicultural structures in Romania (RNP- ROMSILVA) or gained by different national research programs development (ORIZONT 2000, The Romanian Academy grants etc.).

As a result of the activity done, there have been identified the following achievements:

- From a scientific point of view there have already been presented twelve doctoral dissertations, other nine being in progress of elaboration or finalizing;

- The numerous results of the researches are published in specialty magazines and in volumes of the scientific activities.

- Annually, four-five students take their greats exam on dendrometry and forest auxology, they being incorporated in the research teams of the contracted themes;

MAIN COLLABORATIONS

There are co-operations with the specialty departments (Biometry and Forestry Infomatics; Silvotechnique) of the ward from the Researches and Silvic Management Institute Câmpulung Moldovenesc, materialized by grants and research contracts partnerships.

TEAM

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MEMBERS

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Fundamental Biological Processes Laboratory

RESEARCH

→ http://www.silvic.usv.ro/pbf/

OBJECTIVES

Biochemical and physiological mechanisms of the seeds germination from the forestry ecosystems;

Active principles from plants with therapeutical and for the integrated pest management usage;

Study of the intraspecifically genetic variability and suitable biotechnologies for the conservation of the forestry genetic resources in gene banks;

Isolation of intermediary metabolites of plant for testing; Studies concerning the stimulation of seed germination.

MAIN RESEARCH EQUIPMENT

Growth chamber Conviron CMP-4030, UV-VIS spectrophotometer T70, Ultrasounds generators, Electrophoresis complete, Technique rearing insect in lab

MAIN RESEARCH THEMES

A. Implementation of some biorational pesticides in integrated pest management

Faze: Establishing the efficacy of some commercial bio pesticides, which it has not yet introduced in IPM of some agricultural and sylvic pests.

The researches are focused on pine large weevil Hylobius abietis the main pest of the resinous seedlings installed shortly after wood exploitation.

After two years of researches, the bio pesticide spinosad (Laser 240 SC) was very efficacy in the pine large weevil control by foliar seedling application or on the toxic bark. The bio pesticide may be an alternative to replace the use of pyretroid insecticides, which affects the entomophagous insects.

Faze: Obtaining metabolites from spontaneous plants and testing effects on phytophagous insects.

Our researches, from the beginning, were canalised to emphasize the presence of phytochemicals in our indigenous plants which posses insecticidal proprieties, feeding deterrents, growth inhibitors and repellents, without to affect insects' predators (fig.1). The studies starting on 15 plants and results relieved very interesting efficacy.

Fig. 1. Predator itonidid Aphidoletes aphidiomyza Rond alive after phytochimical treatments (round aphids deaths).

B. Physical methods in seed germination stimulation (nuclear radiations and ultrasounds)

Some physical agents influence the germination of the seeds as well as the growth of plants. In this respect we considered very useful to initiate studies to find the level of the interaction between vegetal structure (seeds and plantlets) and nuclear radiations or ultrasounds and magnetic fields. We applied irradiations derived from 1 and 2 sources 241Am (T1/2 = 432,7±0,5 years) in metallic capsules.

After the germination of the Norway spruce seeds (21 days), in Petri boxes, on filtering paper wetted with distilled water in the Growth chamber CONVIRON CMP-4030 at 21oC, the germination capacity and the elongation of hypocotyls in Norway spruce seeds sample subjected to treatment with γ radiations (Am 241 during 3 hours) has registered an increasing related to blank and other seed samples.

On the other hand, the content of free amino-acids was, without exception, increased in irradiated plants related to the blank sample, which indicate a higher level of irradiated plants metabolism.

The effects of the ultrasounds treatment in Norway seed germination (with frequency between 16 kHz and 1MHz, intensities between 0,5 and 2 W/cm2 and time exposure between 0,5 and 5 min.) were multiples and complexes, showing stimulating as well as inhibiting effects. The most significant results indicate a stimulating effect in roots growth (over 27%) and germination capacity (20%), at 1 MHz frequency (fig. 2).

Figure 2. Norway spruce seeds and plantlets irradiated with ultrasounds (5 irradiated seeds samples, M-blank seeds sample)

In conclusion, the nuclear radiation and ultrasounds could represent very useful instruments, establishing first optimal parameters of these physical agents.

MAIN COLLABORATIONS

The Genetics and Molecular Biology Department, the Biology Faculty from Iasi University

The Organic Chemistry Department, the Chemistry Faculty from Iasi University; The Gene Bank from Suceava; The Agricultural Research and Development Station Suceava; Trifolio firm (Germany)

TEAM

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MEMBERS

3 assistant professors, 2 lecturers, 1 assistant

Psycho-pedagogical and Methodological Assistance Laboratory

→ http://www.fsed.usv.ro

OBJECTIVES

- Investigation, diagnosis, intervention for development and improvement of the educational phenomena, especially within primary and preschool educational environment;
- Development of the specific educational guides/tools for primary and preschool teachers;
- Development and validating of the educational strategies in order to meet the specific educational needs of the new generation;

Research directions:

- Didactics applied to primary and pre-school education;
- Strategies and programs for psycho-pedagogical assistance.

MAIN RESEARCH EQUIPMENT

- psychological evaluation batteries (CAS, NEPSY, PSISELTEVA)
- psychological evaluation tests (Personality Inventories, Personality Questionaires)
- statistical instruments (SPSS 16.0, AMOS 7.0)

MAIN RESEARCH THEMES

DIDACTICS APPLIED TO PRIMARY AND PRE-SCHOOL EDUCATION:

Research related to development of the efficient methodology for the curricular areas in primary and pre-school education.

The development of an up-to-date didactic data-base: bibliographies for all the curricular areas, modern didactic means, didactic projects sets and assessment instruments and sociologic tests.

EMOTIONAL EDUCATION

Research related to the development of the specific strategies for the emotional education application in school, especially in primary and pre-school education. Elaborating instruments for the diagnosis of socio-emotional abilities validated for the school population in the respective area.

Investigation related to the elaboration of complex emotional education programs for pre-university education.

ADULT EDUCATION

Investigations related to the school policy regarding the relations school/parents` community, school-local community.

Elaboration of the methodological guide books for developing an efficient parents/teacher communication in school life. Initiation of counseling programs for parents (including instruments of diagnosis and result evaluation).

GIFTED EDUCATION

Research developed in order to enhance the gifted education approach, in terms of curricula (enrichment), teaching strategies, and counseling strategies.

Research developed in order to meet the national policies for gifted education; the psycho- pedagogical instruments for gifted children approach.

UNIVERSITY DIDACTICS

The research in this domain of activity aims to discover organization modalities of life-long or initiation training courses in the domain of university didactics, and to draw up a bibliographical data basis. Another priority domain could also be that of university evaluation (evaluation alternative methods, contents, internal/external evaluation, forms of university evaluation).

PSYCHO-PEDAGOGICAL COUNSELING

Investigations concerning the efficiency of counseling programs, applied in pre-school and primary school education, in the following curriculum area: Counseling. Elaborating useful instruments in all counseling stages (diagnosis cards/records, techniques, exercises, evaluation tests).

MAIN COLLABORATIONS

- Universitat de lleida, University from Barcelon, Cukurova University , Adana, Turkey, Padova University
- Institute of Educational Sciences
- Teachers Training Agency Suceava
- NGO-s: RoTalent Suceava Branch, Teachers from Suceava Association

TEAM

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University Presentation

RESEARCH

→ http://www.usv.ro

The Stefan cel Mare University is a modern institution with over 45 years of tradition in higher education. In 2005, the University adopted the principles of the Bologna Declaration (1999) and of the Magna Charta Universitatum. The University is located in north-eastern Romania, in Bukovina, a region of scenic beauty with a strong focus on social and cultural tradition, a source of national pride and inspiration throughout the centuries. Since 1990 all 9 faculties of our University have provided 3-4-year undergraduate programmes (undergraduate programmes in technical education take 4 years) and postgraduate programmes, including PhD (The Faculty of Electrical Engieering and Computer Science, The Faculty of Mechanical Engineering, Mechatronics and Management, The Faculty of History and Geography, The Faculty of Letters and Communication Sciences, The Faculty of Forestry).

The 1.5 and 2-year Master's degree programmes provide in-depth study of subjects previously taken at undergraduate level or related to such fields. This degree may lay the compulsory foundations for subsequent three-year doctoral programmes. In special cases, the deadline may be extended by 1-2 years, with the prior approval of the University Senate, after the PhD supervisor has put forward a proposal.

The University has continuously developed since its foundation; at present, the campus comprises almost 37.000 square metres of teaching facilities, two gymnasiums, a synthetic-grass sports ground provided with a hot-air inflatable rooftop balloon in wintertime and equipped with a lighting system, as well as a Swimming and Kinetotherapy Complex. The University provides accommodation for over 1000 students in 4 residential facilities of European standards.

A renovated university restaurant of 220 seats, 2 exhibition rooms, a library with 4 reading rooms and all the university buildings equipped with teaching rooms, laboratories with computers and devices necessary for research and study, all these qualify the campus as a modern and dynamic space.

The growing need for updating the current infrastructure due to a consistent increase in the number of students determined the creation of a project for a second campus. The new campus will be built on a surface of 30 hectares and will comprise buildings with lecture halls, 4 modern accommodation buildings, nanotechnology and biotechnology research laboratories, a sports arena with 4000 seats, a university restaurant, a dendrological park and a botanical garden, an olympic swimming pool and sport grounds.

The main objectives of the Stefan cel Mare University of Suceava are the following: to train specialists with degrees in the subject areas acknowledged by the national and Europeean official documents, to harmoniously shape the students' personality, to enhance their creativity and encourage improvement, to continuously develop scientific research, at the level of contemporary international standards, to seek for a permanent assessment of scientific performance of the members of the academic community, by means of their involvement in the international community and in co-operation among universities, as well as to constantly improve the educational and scientific research activities with a view to structural, qualitative and economically successful integration within the European system of higher education.

University Campus Laboratories Map

1. Quality Control Laboratory of Cereals and Bakery Products
2. Laboratory for Microbiological Control of Food Products
3. Laboratory for Water Quality
4. Instrumental Analysis Laboratory
5. Material Testing Laboratory
6. Biofuels Laboratory
7. Unconventional Actuators, Micromachines and Microdrives Research Laboratory
8. Fundamental Energetics Research Laboratory
9. Pattern Recognition and Image Processing Research Laboratory
10. Electromagnetic Compatibility Research Laboratory EN 17025/2005 accredited laboratory
11. Radio identification devices and short range devices laboratory
12. Laboratory for High Performance Computing (HPC)
13. Laboratory for Research of Hysteretic Systems
14. Tribology Laboratory
15. Universitary Laboratory of Advanced Manufacturing Technologies for Metal Cutting
16. Research Center of Applied Geography (CCGA) Department Of Geography
17. The "Carpathica" University Centre of Interdisciplinary Studies
18. Discourse Analysis Research Centre Suceava (CADISS)
19. The INTER LITTERAS Research Centre
20. Research Centers of Faculty of Economic and Public Administration
21. Forest Biometry Lab
22. Fundamental Biological Processes Laboratory
23. Psycho-pedagogical and Methodological Assistance Laboratory

Universitatea
Ştefan cel Mare
Suceava

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RESEARCH

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