AC_G_XBU_ACADEMY

Goal of the project

The aim of this project is to develop the e-Learning part of the AUTOSAR (AUTomotive Open System ARchitecture) Division in Continental Automotive Romania. The aim of AUTOSAR is to create and further establish different standards for Automotive Electrics and Electronics architectures. Such an infrastructure can assist with the developing of automotive software. The current trend is to adopt AUTOSAR on different functional areas therefore is a tremendous demand of state-of-the-art trainings, available in different R&D locations. Hence the need to offer e-Learning trainings in a reliable and dependable fashion.

Short description of the project

In the rapid developing market of automotive industry, cutting-edge technologies are being introduced. One such example is the AUTOSAR standard. Companies are investing a large amount of finances for the training of their employees into the intricacies of such technologies. In order to face such an increase of the training costs, automotive corporation have started lately switching their approach to e-Learning systems. In order to develop the e-Learning solution we focused on the Software Development part of automotive industry. Therefore we had to gather the ideas from different trainers, come with a common approach and use specific techniques so that the trainee should get a real feeling of the material. It is presented the design, implementation and evaluation of this e-Learning solution, but more than that faced issues and learned lessons. Developing this solution has offered different insights into how to approach such a task which are useful for the further expansion of the project, but also for future researchers who might encounter such a challenge of developing e-Learning solutions for the automotive industry. These are all grouped in a set of guidelines related to following a model of implementation, getting track of participants, user interaction with the AUTOSAR standard, test and production development and so on.

Project implemented by

Razvan Bogdan

Implementation period

July 2015 – March 2016

Main activities

The solution, which is nowadays part of an actual ongoing automotive project, is to transfer the existing materials, knowledge and also software tools in an e-Learning environment. In this way, the AUTOSAR training can be offered at a lower cost, but to a larger community around the world. In order to achieve this task different steps were taken into consideration.

Step 1: Search for different tools that can be used in order to achieve the above goal

Step 2: Defining a process in order to develop the online training material

Step 3: Evaluation of the e-Learning solution

Results

This solution is practically offering to each trainee the means to understand and apply the intricacies of AUTOSAR standard to different projects. Giving the fact that is an e-Learning system, issues such as time and cost were overcome. Participants can be from different locations around the world and the trainer does not have to move long distances for a certain Research & Development center. From the trainee point of view, he / she can spend as much time as needed until lessons are learned and also different quizzes and assessments are available both during the concept presentation and at the end of each module. The architecture of the e-learning solution is presented in the figure.

Also, 2 scientific papers have been published as results of this project. One of the paper, entitled "Guidelines for developing educational environments in the automotive industry", has been accepted for publication in the Web of Science rated journal, called International Journal on Interaction Design and Architectures.

Applicability and transferability of the results

The present project is being used in automotive industry since 2015.

Financed through/by

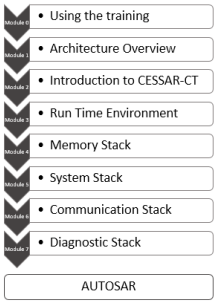
S.C. Continental Automotive Romania S.R.L.

Research Centre

Mobile computing, sensor networks and embedded systems Laboratory

Research team

Razvan Bogdan, Mirela Dragota



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MICRO-HYDRO POWER PLANTS INTEGRATION IN THE ROMANIAN POWER SYSTEM. CASE STUDY FOR CARAS-SEVERIN AREA

Goal of the project

Power system analysis and optimization for the micro-hydro power plants' integration in the Caras-Severin area of the Romanian Power System (Enel Banat Distribution Operator).

Short description of the project

The renewable energy sources represent an important issue for the Romanian and EU energy policy and sustainable development strategy. The projects refer to micro-hydro power plants integration in the Caras-Severin area of the Romanian Power System (Enel Banat Distribution Operator). The analysis has been performed for the North-Western, Western, Central and South-Western part of the Romanian Power System. Various operating condition, with the consumption forecast for 2020 and 2025, were considered, taking into account all the renewable energy sources (wind, solar, biomass, hydro). The medium voltage network for the interest area has been modelled in detail.

Project implemented by

S.C. Cons Electrificarea Instal S.R.L., Timisoara

Implementation period

2016-2017

Main activities

- power system data base validation;
- Enel Banat distribution network modelling; operating condition computing and analysis;
- power consumption and renewable energy generation forecast;
- power flow computing for various operating condition of the North-Western, Western, Central and South-Western part of the Romanian Power System (peak and unloaded type operating condition for 2016, 2020, 2025 years);
- contingency analysis, in the presence / absence of the renewable energy sources.

Results

- power flow corresponding to 2016 year and forecasted 2020 and 2025 years;
- power flow corresponding to the medium voltage electrical network (Enel Banat Timisoara area);
- voltage value without / with the new generating units;
- quick / slow maximum voltage variation value for critical buses;
- transformer loading without / with the new producers;
- power flow though the power system elements and loading level;
- integration solution validation and system reinforcement recommendations.

Applicability and transferability of the results

Knowledge transfer to other renewable power plants developers and designers, or to the electrical distribution network operators (Enel, CEZ, EON, Electrica in Romania).

Financed through/by

S.C. Cons Electrificarea Instal S.R.L., Timisoara

Research Centre

Power Systems Analysis and Optimization Research Centre

Research team

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THE MONITORING OF WATER QUALITY USED IN DIALYSIS

Goal of the project

The goal of the project is to monitoring the water quality used in dialysis.

Short description of the project

During the project various parameters of dialysis water are periodical analyzed from samples collected by the beneficiary. The parameters analyzed and the times for the samples collections are commonly agreed by the beneficiary and by the execution team. The analysis of the main parameters for the monitoring of water quality used at dialysis are needed to see if they are into the maximum admissible concentration of legislation..

Project implemented by

Faculty of Industrial Chemistry and Environmental Engineering.
Department of Applied Chemistry and Engineering of Inorganic Compounds and Environmental.

Implementation period

January 3, 2016 - January 4, 2017

Main activities

- During the project the metal ions (Al, Pb, Cu) from the dialysis water will be analyzed each month.
- The ions Ca, K, Mg, Na, Al, Cu, Pb, Cr, Sb, As, Ba, Cd, F^-, Hg, NO_3^-, Se, Ag, SO_4^{2-},Be, Cl^-, Tl, Zn from system water, deionized water and permeate will be analyzed in one month.

Results

Monthly are analyzed three samples of water (system water, deionized water and permeate) to determine the concentrations of metal ions.

Applicability and transferability of the results

- Improved university-industry relationships.
- Updating curricula in accordance with the economic realities of the local area.
- The results are consistent with the legislative framework in force.

Adoption by the university of new mechanisms and management techniques resulted from the project activities.

Financed through/by

S.C. NEFROMED S.R.L.

Research Centre

Research Center of Environmental Sciences and Engineering

Research team

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Associate Professor Negrea Adina, PhD

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MONITORING THE QUALITY OF WASTES FROM TEHNOLOGICAL PROCESS

Goal of the project

The goal of the project is to monitoring the quality of waste and sludge from technological process.

Short description of the project

During the project various parameters of wastes and mud are periodical analyzed from samples collected by the beneficiary. The parameters analyzed and the time for the samples collections are commonly agreed by the beneficiary and by the execution team.
The analysis of the main parameters for the monitoring the quality of waste are required for their storage according to law.

Project implemented by

Faculty of Industrial Chemistry and Environmental Engineering.
Department of Applied Chemistry and Engineering of Inorganic Compounds and Environmental.

Implementation period

October 3, 2016 until October 2, 2017

Main activities

The main activities of the project are:

- analysis of volatile organic compounds (COV) from solid and liquid waste.
- leaching tests for sludge to be placed in a class of waste.
- analysis of the following parameters: Cr^{3+}, Cu^{2+}, Ni^{2+}, Cd^{2+}, Pb^{2+}, Zn^{2+}, pH and humidity from sludge.
- the main parameter are analyzed once a month in according to the project plan.

Results

1. The volatile organic compounds (VOC) from waste were analyzed.
2. The concentration of heavy metals in sludge from the process was determined.
3. Sludge leaching tests they were made.

Applicability and transferability of the results

- Improved university-industry relationships.
- Updating curricula in accordance with the economic realities of the local area.
- The results are consistent with the legislative framework in force.
- Adoption by the university of new mechanisms and management techniques resulted from the project activities.

Financed through/by

S.C. FLEXTRONICS ROMANIA S.R.L.

Research Centre

Research Center of Environmental Sciences and Engineering

Research team

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ARCHITECTURAL DESIGN CONTEST "THERMAL REHABILITATION OF CITY BLOCKS IN TIMIŞOARA"

Goal of the project

Large areas of many Romanian cities present usually five or eleven story constructions, organized in closed patterns, offer a very strange image with punctual thermal rehabilitation for a single apartment or a single staircase in a building having 2/3/4 entrances and private owners. The lack of knowledge or experts advice is reflected in the last two decades of facades and roofs rehabilitations.
As a didactic exercise, together with the one of the largest company that produces construction materials for ETICS system (Baumit), during the last two academic years we developed a project for one of the 4th year discipline, Construction Physics in which the students could produce fresh ideas to obtain a unified architectural image.

Short description of the project

Urban and thermal rehabilitation for concrete prefabricated panel blocks – student ideas.

Project implemented by

4th year Architecture students from the optional project Construction Physics

Implementation period

15.04.2016-15.07.2016

Main activities

The whole study had one technical part considering the necessary isolation (with thermal calculation) and the other one, more architectural, was promoted as a competition, with real prizes to stimulate the participants, also having chromatic constraints given by local regulations.

Results

Considering the importance of managing a unified image for these specific collective houses and the idea of finding a concept capable to be reproduced at a large scale, the results show that young specialists can have an interesting perspective over buildings older than their own age. The common interest coming from an "outsider" prevailed the individual concerns.

Applicability and transferability of the results

Faculty and City hall exhibitions, Baumit materials

Financed through/by

BAUMIT ROMANIA COM S.R.L.

Research team

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Arch. Dragos BOCAN (external associated assistant lecturer of UPT)
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LOAD BEARING CAPACITY ASSESSMENT OF PRESTRESSED CONCRETE COLUMNS USED IN AGRICULTURE

Goal of the project

The behavior of high span and small cross sections prestressed concrete elements are less studied. Scope of the project was to investigate through laboratory tests the behavior of such specimens used in agricultures.

Short description of the project

The load bearing capacity and behavior and of prestressed concrete columns used in agriculture were investigated through laboratory tests. Test methods, static schemes and element position in the tests were established previously together with the beneficiary and were correlated with the available norms and codes. There were tested 18 specimens in 2 different static scheme. The investigated parameters were: behavior of columns in the elastic domain; deformations in elastic phase, just before failure and at failure; load values at cracking, at the initiation of failure and in ultimate state; deflection and crack width at every load step.

Project implemented by

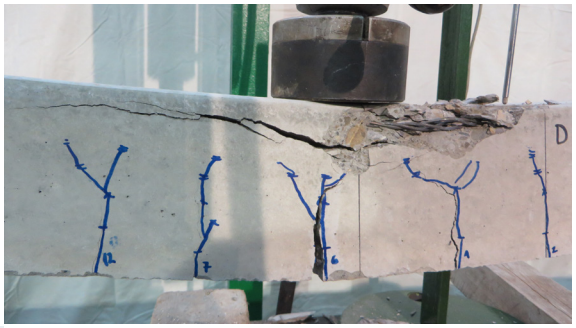
S.C. BAUELEMENTE S.R.L.
Loc. Ariceștii - Rahtivani, jud. Prahova, Str. Strada Bruxelles nr. 877A

Implementation period

05.09.2016 – 05.12.2016

Main activities

- Design and preparation of the experimental stand based on the needs of beneficiary, correlated with the available norms and codes
- Experimental testing a total of 18 specimens, 3 elements types (4Φ/80x85cm, 6Φ/80x85cm, 6Φ/100x120cm) in 2 static scheme, 3 specimens for every variables.
- Determination of deflections and crack width for every load step.
- Assessment of the behavior based on cracking mode, crack distribution and propagation, as well as failure modes.
- Elaboration of research report.



Results

The most relevant result consists in:

- Dimensions of the elements are in conformity of the SR EN 12843:2005 code requirements.
- Geometrical deviations of the specimens are within accepted limits.
- Tested specimens behaved as expected compared with similar type of elements.
- Cracking mode of the elements were specific for prestressed elements.
- Test results were uniform from ultimate force and deflection point of view.
- Important differences in ultimate load bearing capacity were observed when a static schemes were modified.

Applicability and transferability of the results

The experimental results obtained within the project will be introduced in an advanced calculation model for such small cross sections prestressed concrete elements. Results could be used to improve design and construction practice.

Financed through/by

S.C. BAUELEMENTE S.R.L. through research project BC85/2016

Research Centre

Research Centre for Retrofitting of Constructions – RECO,
Politehnica University of Timisoara

Research team

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FIELD AND LABORATORY INVESTIGATIONS CONCERNING THE GROUND OF THE SAFETY LANE (RWY STRIP) AND THE SAFETY AREA PERTAINING TO THE TAKE OFF/LANDING RUNWAY (RESA)

Goal of the project

The technical report aims at realizing field and laboratory investigations concerning the improvement of the ground of the safety lane of the runway (RWY STRIP) and the safety areas pertaining to the take off/landing runway (RESA), as well as offering solutions to make these areas adequate to the requirements of the technical regulations in the aeronautic field.
It is recommended that the objectives be built to minimize the dangers induced by a possible faulty taxiing, or by the differences in bearing capacity.

Short description of the project

The report consists in researching the characteristics of the ground on the runway through in situ and laboratory testing. The following characteristics have been determined: - for the ground in the area: grading, plasticity, consistency index; layering of the ground in the runway strip through geotechnical drilling and sounding; the bearing capacity of the ground through light dynamic penetration (PDU) and the Californian bearing Ratio. The required value of the resistance parameter (CBR) of the soil ranges between 15 and 20%.
In the case of inaccurate values, the laboratory study offered major technical solutions to obtain the required performances in respect to the bearing capacity, such as:
- stabilization with special hydraulic binders;
- mechanic stabilization.

Project implemented by

S.N. AEROPORTUL INTERNAȚIONAL TIMIŞOARA TRAIAN VUIA S.A
TRAIAN VUIA INTERNATIONAL AIRPORT TIMISOARA SA

Implementation period

01.03.2016 – 01.07.2016

Main activities

- identification of the stratigraphic succession of the soil layers in the foundation ground;
- determination of the underground water level;
- determination of the physical-mechanical characteristics of the soil layers in the foundation ground, through laboratory analyses and tests;
- determination of the resistance to shearing stress Φ and c for the undisturbed samples through unconsolidated-undrained direct shearing (13x3 samples);
- determination of the CBR index (Californian Bearing Ratio) for the undisturbed soil samples (13 samples);
- determination of the optimal compaction moisture through the normal Proctor test (5 samples).

Realization of homogenous soil mixtures by adding different percentages of special hydraulic binder, 2%, 4% and 6% respectively.

Results

The application of a 70/30 soil/gravel ratio with the CBR index of minimum 22% is recommended for mechanical stabilization.
The stabilization with special hydraulic binders requires the application of a dosage of 4% binder in the mixture for which a minimum 26% CBR index is obtained (28 days). Even with an adequate CBR index for a 2% binder stabilization, a 4% hydraulic binder dosage is recommended, in order to ensure a high quality behavior of the material in the accidental presence of infiltration waters.

Applicability and transferability of the results

The results obtained intend to ensure the required bearing capacity CBR = 15 . . . 20%, for the take off/landing runway strip RESA.

Research Centre

Research Centre of Infrastructures for Constructions and Transportation – ICT –

Research team

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Assoc. Prof. Ioan Petru BOLDUREAN, Ph.D, Eng.
Lecturer Monica MIREA, Ph.D, Eng.
Lecturer Alexandra CIOPEC, Ph.D, Eng.
Lecturer Luiza ROMAN, Ph.D, Eng.
Eng. Andrei FORTON PH.D, Student
Eng. Alin BUZURIU, Ph.D, Student

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TECHNICAL AND GEOTECHNICAL REPORTS FOR THE REHABILITATION WORKS ON DN76, IONEȘTI – VÂRFURILE, KM 55+425 – KM 69+350 – TECHNICAL REPORT ON ROAD SUPERSTRUCTURE

Goal of the project

The technical report aims at assessing the executed works, starting from the site documents drawn up during construction, as well as at proposing technical solutions which can be applied for finalizing the works.
The theme of the report requires the highlighting of the existing technical condition of the road structure and the proposition of viable alternate solutions to continue the rehabilitation, ensuring the technical and qualitative performances while speeding up the work rhythm.

Short description of the project

Research for proposing viable technical solutions to finalize the works.

Project implemented by

S.C. ALDOR S.R.L. Timișoara

Implementation period

01.03.2016 – 01.07.2016

Main activities

The assessment of the national road section to be rehabilitated, DN 76 Ionești – Vârfurile, km 55+425…km 69+350, consisted in determining the present performance indices for the realized works, as follows:

- assessment of the bearing capacity;
- assessment of the deterioration;
- assessment of evenness;
- assessment of traffic;
- assessment of road structure composition;
- condition of the realized works.

Based on the results obtained from the afore-mentioned verification, conclusions were drawn up concerning the quality of the realized works (enlargement casing) and the technical condition of the existing road section.

Results

The investigations lead to the following conclusions:

- the realized casings differ in aspect from one section to the other or even on the length of the same section;
- the research performed shows diverse and extended degradations, multiple repairing works, totally inadequate evenness and bearing capacity at the level of the road surface, aspects arguing for the necessity of strengthening the road complex;
- the field research shows that the quality conditions are adequate at the upper side of the analyzed casings, and the their bearing capacity is at least equal to the one in the existing road complexes;
- the geotechnical drillings show that the existing road layers have variable thickness, are realized in different materials and are placed on foundation grounds with low bearing capacity.

Applicability and transferability of the results

Based on the analysis of the existing situation, the following technical solutions were analyzed:

- strengthening of the existing road complex with new bituminous layers;
- realization of new foundation layers, with or without milling the existing bituminous layers;
- application of a cold recycling technology in situ on the existing road layers.

The recommended technical solution includes the leveling of the bearing capacity on the entire width of the carriageway by applying an in situ stabilized layer with hydraulic and bituminous binder, followed by the realization of a bituminous pavement.

Research Centre

Research Centre of Infrastructures for Constructions and Transportation – ICT –

Research team

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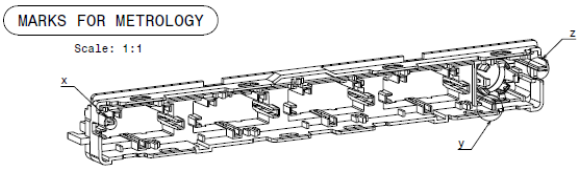
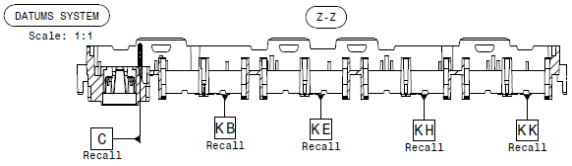
RESEARCH AND INVESTIGATION REGARDING THE QUALITY IMPROVEMENT AT 3D MEASURING OF INJECTED PLASTIC PARTS

Goal of the project

To transfer knowledge to the technical staff from the quality department in order to improve the quality of the parts by understanding the geometrical product specification method (GPS) and the 3D measuring strategies used to measuring the injected plastic parts from the automotive industry.





Short description of the project

Developing the 3D measuring strategies for the injected plastic parts according to the GPS.

Project implemented by

3D Measuring Laboratory/Quality department, S.C. PLASESS SRL, Romania

Implementation period

21.07.2016 - 30.09.2016

Main activities

- study the real plastic parts and their drawings
- identify the datums and define the parts coordinate systems
- establish the measuring strategy in Tactile Coordinate Metrology, according to the characteristics of the part, shape, accuracy and the quality of the real part (warpage of the part caused by shrinkage)
- 3D measuring program: datums measuring, features measuring, establishing the number of measuring points and their distribution on the surface
- 3D measuring of the plastic parts on a CMM with contact sensors
- analyse the measuring results and establish the factors which may lead to effects on the measuring result and measuring uncertainty

Results

Transfer to the technical staff of the company the drawings interpretation method according to the GPS, tolerance analysis and 3D measuring strategies in order to improve the quality of the products. For each plastic part studied were formulated conclusions regarding the measuring strategies and the factors which lead to the effects on the measuring results and measuring uncertainty.

Applicability and transferability of the results

All the research results are transferred to the company. These results lead to an improvement in 3D measuring process by reducing measuring time, costs and measuring uncertainty. Based on these results, in the mold testing phase, some corrections at the injection mold can be made. During the part production period the results could be used to change the injection process parameters in order to fit the part in the technical specifications.

Financed through/by

S.C. PLASESS SRL, Romania

Research Centre

Integrated Engineering Research Center

Research team

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Conf.dr.ing. Stan Daniel
Ș.L.dr.ing. Tulcan Liliana
Asist.dr.ing. Pop Florina
Asist.dr.ing. Pop Cristian

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COMPLEX STUDY BY NUMERICAL SIMULATION AND MONITORING IN SITU, ON THE OPORTUNITY OF RELOCATING THE STATION TIM-I OF THE NATIONAL NETWORK OF AIR QUALITY MONITORING TOWARD TWO OTHER POTENTIAL NEIGHBORING LOCATIONS. OPINIONS REFERRING TO ITS MONITORING CAPACITY IN A NEW LOCATIONS.

Goal of the project

The scope of the project is to determine a novel position for an existing monitoring station from the national monitoring system of Romania, situated in Timisoara, as a traffic station and named TM1. The development of the city needs the prolongation of the public transport lines, in terms of an extension of the tram line, which is supposed to pass over the present position of TM1. Thus the relocation of the traffic station is analyzed critically, from the point of view of (i) respecting the present EU legislation on air quality, and (ii) in respect to offering the most beneficiary and representative opportunities for monitoring.

Short description of the project

- Online air quality campaigns accomplished on a traffic & residential zone from Timişoara, Romania by the UPT accredited lab;
- Dispersion modeling of several episodes, in three potential locations;
- Correlation between the values measured, with the values generated by dispersion modeling, under the same conditions, in the same location;
- Comparison between the values measured by the accredited lab and those generated by TIM-1.

Project implemented by

Local economic and administrative bodies, under the coordination of City Hall Timisoara - in order to achieve a possible implementation in the next future, based on the results of the project, supporting administrative, legal decisions.

Implementation period

May 2016 - December 2016

Main activities

- Study of the relocation possibilities. Planning the strategy of the measuring campaigns (on line, in situ);
- Calibration of the instrument, according internal procedures of the lab;
- Calculation of the concentrations measured and graphical representation of the Results of online air quality campaigns accomplished on a traffic & residential zone from Timişoara, Romania;
- Results of dispersion modeling of several episodes, in three potential locations
- Correlation between the values measured, with the values generated by dispersion modelling, under the same conditions, in the same location

Results

- Very good correlation between the NO measured values, both by the accredited lab, as well by the official station TIM-1.
- Lack of evidence for some concentration values for species through the TIM 1 station, especially PM measurements

Applicability and transferability of the results

- The relocation of the present TIM1 to another position is possible, by maintaining the representativeness of the measured values, in terms of air quality;
- Research results permit comparisons and conclusions, the values recorded by the accredited lab being very important and more complex, as these offered by the fixed traffic station TIM-1, in the present position/shape;
- The development of the city transport system can be continued / prolonged; the new location fits the present legislation regarding the location of traffic stations, in terms of air quality monitoring.
- The simultaneous measurements organized, offering the possibility of a comparison between measured values by two stations/labs (one accredited lab and one official Lab TIM1), support the research conclusions, as well developing of a novel method for impact depicting of a certain source upon a specific point. .

Research Centre

Research Centre for Thermal Machines & Equipments, Transportation and Environmental Pollution Control

Research team

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RESEARCH ON WOOD RESIDUES POWERED STEAM BOILED FOR ENVIRONMENTAL IMPACT EVALUATION

Goal of the project

The project results are used by the beneficiary to estimate with high accuracy the emitted pollutants (particles, VOC's, CO, NO_x, SO_2, CO_2) monthly/ yearly balance in compliance with relevant national and European legislation.

Short description of the project

The project consist in measurements of relevant pollutant concentrations (VOC's, particles, CO, O_2, NO, NO_2, NO_x, SO_2, CO_2) emitted a wood residue powered steam boiler stack, corroborated with thermodynamic parameters of the flue gases.

Extended reports are prepared in accordance with EU legislation and laboratory quality standard EN 17025:2005. Additional studies were performed regarding the efficiency and optimization of facility pollutant reduction systems, such as particle fabric filters mounted between steam boiler and exhaust stack. Study on potential recovery of heat losses with exhaust gases are also of interest.

Project implemented by

Faculty of Mechanical Engineering / MMUT Department

Implementation period

01.06.2016 – 20.12.2016

Main activities

- Periodic measurements campaign for flue gas pollutant concentrations (VOC's, particles, CO, O_2, NO, NO_2, NO_x, SO_2, CO_2).
- Periodic scientific reports in accordance with laboratory quality standard EN 17025:2005.

Results

A significant database comprising air pollutants emissions for large steam boilers powered by waste wood biomass.

Applicability and transferability of the results

Due to the wide spread of wood manufacturing facilities and the use of the large steam boilers powered by waste wood residues (biomass) the resulted database of air pollutants concentrations emitted can be of interest for inter-comparison studies.

Financed through/by

WERZALIT LEMN TECH SCS

Research Centre

Research Centre for Thermal Machines & Equipment's, Transportation and Environmental Pollution Control

Research team

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DIAGNOSTIC ANALYSIS OF MCA INVEST INDUSTRIAL SRL AND ELABORATION OF THE COMPANY'S DEVELOPMENT STRATEGY

Goal of the project

The goal of the project was to perform a diagnostic analysis of the company and to elaborate the company's development strategy along with the pertaining strategic plan.

Short description of the project

The project was a practical one which was based on the situation of a company from the transportation domain.

Project implemented by

The implementation was done through the contract with third parties BC13 / 2016

Implementation period

March 2016 – February 2017

Main activities

The main activities of the project were:

- Diagnostic analysis of the company – performed through interviews with the main people from the company, analysis of the company's financial accounting situation and the organization documents of the economic organization which resulted in drawing up the pertaining document which included the main directions for future action
- Support in carrying out the new organization chart, the visual identity of the company (new website, business cards, presentation brochures in Romanian and English)
- Assistance in hiring new employees
- Identifying new customers and assistance in concluding new contracts
- Elaboration of the company's development strategy

Results

- Diagnostic analysis of the company and the development strategy for the next 5 years
- New websites in Romanian and English for the transportation and repair shop activity
- Business cards and presentation brochures in Romanian and English
- Psychological profiles of the company's key employees
- Identifying new customers and signing 2 new contracts with them

Applicability and transferability of the results

The results can be applied in companies of this type from Romania. In addition the transfer of the work method can be done without problems in any other type of company.

Research Centre

Research Center in Engineering and Management

Research team

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