



Manea Florin

Data nașterii: 26/03/1975 | **Cetățenie:** română | **Număr de telefon:**

(+40) 727200785 (Număr de telefon mobil) | **E-mail:** florin.manea@gmail.com |

Adresă: Petroșani, România (Muncă)

EXPERIENȚA PROFESIONALĂ

14/05/2006 – ÎN CURS Petroșani, România

ȘEF OFICIUL JURIDIC INCD INSEMEX

Efectuarea cercetărilor la fața locului în cadrul expertizelor tehnice dispuse de organele de cercetare penală, precum și participarea la elaborarea acestora. Monitorizare achiziții publice, recuperare creanțe, supervizare contracte comerciale și civile.

12/2004 – 05/2006 Petroșani, România

CONSILIER AL EXECUTORULUI JUDECĂTORESC BEJ VRABIE FLORIN

Executări ale hotărârilor judecătorești prin toate formele de executare conform Codului de Procedură Civilă.

09/2002 – 05/2004 Arad, România

BRAND MANAGER SARA MERKUR ASIGURĂRI DE VIAȚĂ

Coordonare echipă de 29 de persoane în vederea vânzării de produse de asigurare.

12/1996 – 08/2000 Nurenberg, Germania

TEHNICIAN REȚELE DE CALCULATOARE PROTEC SERVICE BAYERN

Întreținere rețele IT și service hardware și software

EDUCAȚIE ȘI FORMARE PROFESIONALĂ

01/07/2024 – 01/07/2026 Timișoara, România

CERCETĂTOR AVANSAT (POSTDOCTORAT) UNIVERSITATEA DE VEST DIN TIMIȘOARA

Domeniul (domeniile) de studiu: Educație | **Nivelul CEC:** 8

13/09/2024 Timișoara, România

DIPLOMĂ DE DOCTOR UNIVERSITATEA DE VEST DIN TIMIȘOARA

Domeniul (domeniile) de studiu: Chimie

08/09/2021 – 13/09/2024

DOCTORAND UNIVERSITATEA DE VEST DIN TIMIȘOARA

Adresă Timisoara | **Site de internet** www.uvt.ro

08/2019 – 14/05/2021 Timisoara, România

DIPLOMĂ MASTER CHIMIE CRIMINALISTICĂ UNIVERSITATEA DE VEST DIN TIMIȘOARA

Adresă www.uvt.ro, Timisoara, România

08/2007 – 06/2008 Arad, România

DIPLOMĂ DE MASTER DREPT ADMINISTRATIV UNIVERSITATEA DE VEST VASILE GOLDIȘ, ARAD, FACULTATEA DE ȘTIINȚE JURIDICE

09/2000 – 02/2005 Arad, România

DIPLOMĂ LICENȚĂ STUDII JURIDICE UNIVERSITATEA DE VEST VASILE GOLDIȘ, ARAD, FACULTATEA DE ȘTIINȚE JURIDICE

**COMPETENȚE LINGVISTICE**Limbă(i) maternă(e): **ROMÂNĂ**

Altă limbă (Alte limbi):

	COMPREHENSIVNE		VORBIT		SCRIS
	Comprehensiune orală	Citit	Exprimare scrisă	Conversație	
ENGLEZĂ	B2	B2	B2	B2	B1
GERMANA	B1	A2	A1	B1	A1

Niveluri: A1 și A2 Utilizator de bază B1 și B2 Utilizator independent C1 și C2 Utilizator experimentat

COMPETENȚE DIGITALE

Navigare Internet | Social Media | Microsoft Excel | Microsoft Word Microsoft Excel Power Point | programe de editare grafică – Photoshop | Cunostinte avansate PC (software si hardware) | Google Drive | Cunostinte generale de retelistica | BAZE DE DATE | nelegere sisteme operare IOS Android Windows | MacOS intermediar | EDITARE AUDIO | EDITARE VIDEO

INFORMAȚII SUPLIMENTARE**PUBLICAȚII****Single-Particle Ignition Mechanism of Polyurethane Acoustic Foam by Fountain-Type Pyrotechnic Device: An Experimental Study** – 2026

Polyurethane acoustic foam, widely used in entertainment venues, can be ignited by sparks produced by pyrotechnic devices. Although fountain-type devices are frequently described as producing “cold sparks”, the ignition potential of a single hot particle has been insufficiently quantified. The study combined three experimental configurations: ignition probability tests at different distances, a scaled pillar installation and high-speed video recording of single-particle impacts. Ignition occurred in approximately 20% of the tests performed at various distances and in about 22% of the tests in the scaled installation. High-speed footage revealed two distinct behaviours: in non-ignition cases the particles fragmented or ricocheted, while in ignition cases the particle partially penetrated the foam, melted it and released volatiles that ignited, a process associated with a retained thermal energy of roughly 0.5–1 J. The results demonstrate that isolated particles can initiate combustion, so particle-induced ignition represents a real fire hazard wherever acoustic foam and pyrotechnic effects coexist, with direct relevance for safety regulations in entertainment venues.

Authors: Maria Prodan, Emilian Ghiciei, George Artur Găman, Daniel Pupăzan, Marius Cornel Șuvar, Nicolae Vlasin, **Florin Manea**, Irina Nălboc, Andrei Szollosi-Moța, Gheorghe Daniel Florea, Robert Laszlo

MDPI Fire Journal FI=3.2 Q1 RED, Volume 9, Issue 5, Article 180

Combustion Behavior of Flexible Polyurethane Foam in Oxygen-Enriched Atmosphere and Its Implications in the Development of a Fire in an ICU for COVID Patients—Case Study – 2026

The paper analyses the 2021 fire that occurred in an intensive care unit for COVID-19 patients receiving oxygen therapy at a county emergency hospital in Ploiești, Romania, an event which destroyed the ward, caused two fatalities and injured a medical worker. A dedicated combustion test stand capable of maintaining an oxygen concentration of approximately 40% by volume, similar to the conditions in the ward, was developed. Tests carried out on flexible polyurethane foam samples showed a marked acceleration of



combustion and the complete consumption of the material. Together with Fire Dynamics Simulator (FDS) modelling, the experimental results explain the very rapid development of the fire.

Authors: **Florin Manea**, Emilian Ghicioi, Marius Cornel Șuvar, Maria Prodan, Daniel Gheorghe Pupăzan, Daniel Florea, Bogdan Adrian Șimon-Marinică, Robert Laszlo, Gabriela Alexandra Ursuț, Gheorghe Ilia

MDPI Fire Journal FI=3.2 Q1 RED, Volume 9, Issue 1, Article 33

The Experimental Study of Flame Behavior of Flexible Polyurethane Foam (Sponge), as a Sound-Absorbing Element – 2025

Flexible polyurethane foam (sponge) is a widely used sound-absorbing material, but it is also highly flammable. The paper investigates the horizontal and vertical burning rates, the gases released during combustion and the temperatures reached when the foam is used as a sound-absorbing element in the vicinity of a stage. Small-flame ignition tests and ignition-temperature tests were performed. The results show that the vertical orientation accelerates combustion, an aspect relevant for fire prevention. The analysis of combustion gases by spectrophotometric, ion chromatography and gas chromatography methods identified toxic products, including hydrogen cyanide, carbon monoxide and hydrochloric acid, which can endanger people during a fire.

Authors: **Florin Manea**, Gheorghe Ilia, Emilian Ghicioi, Daniel Gheorghe Pupăzan, Maria Prodan, Aurelian Horia Nicola

MDPI Fire Journal FI=3.2 Q1 RED, Volume 8, Issue 4, Article 127

Development of a Programmable System Used for the Preparation of a Mixture of Flammable/Explosive Gases – 2024

The paper presents a computer-controlled stand for preparing mixtures of flammable, toxic or explosive gases at concentrations within the explosive range. Two gas flows are metered by cylindrical injectors driven by stepper motors, the gases being kept at atmospheric pressure. The design eliminates mechanical, electric or pneumatic valves from the gas circuits, thus avoiding high-pressure components, preventing backflow and reducing sensitivity to sudden pressure variations. The resulting mixture passes through a homogenization chamber equipped with an agitator and a sensor that confirms the target concentration.

Authors: Adrian Bogdan Șimon-Marinică, George Artur Găman, Daniel Pupăzan, Emilian Ghicioi, **Florin Manea**, Marius Cornel Șuvar, Maria Prodan, Niculina Sonia Șuvar, Gheorghe Daniel Florea, Robert Laszlo

MDPI Automation Journal FI=2.9 Q2 RED, Volume 5, Issue 3, pp. 246–258

HEALTH AND SAFETY OF WORKERS IN THE MINING INDUSTRY FOLLOWING THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE – 2024

Autori: Andrada Denisa Matei, Ligia Ioana Tuhuț, M.M. Simion, Cristian Raul Cioara, **Florin Manea**

International Multidisciplinary Scientific GeoConference: SGEM, Volume 24, Issue 1.1, pp. 303–310

Virtual experiments about hydrogen explosions with linear propagation – 2024

The dangers associated with hydrogen mainly come from its wide flammability range, it's extremely fast burning rate (having much more aggressive explosive properties than methane gas) and the considerable amount of energy released when it burns or explodes. The development of new applications that use hydrogen as clean energy is constantly increasing, thus, hydrogen can be used on a large scale. This paper presents the use of computational fluid dynamics techniques, regarding the linear propagation of the explosion of air and hydrogen mixture in closed spaces, the main purpose being the determination of the overpressures to which a test stand of this processes is subjected.

Autori: Adrian Bogdan Șimon-Marinică, **Florin Manea**, Zoltan Vass, Vlad Mihai Păsculescu

MATEC Web of Conferences

Practical skills and safety requirements in the profession of pyrotechnician – 2024

National legislation states that a pyrotechnician is a person who has specialist knowledge and is authorized to handle and use pyrotechnic entertainment items. It is necessary to acquire technical and practical knowledge, but above all the training of skills in the proper use of pyrotechnic articles, taking into account the specific risk and the complexity of the execution of the operations. At INCD INSEMEX Petroșani, the technical and practical facilities for the organization of qualification courses in the profession of



pyrotechnician have been developed, leading to an increase in the level of knowledge and the acquisition of practical skills.

Autori: Cristian Raul Cioara, Ligia Ioana Tuhuț, **Florin Manea**

MATEC Web of Conferences

The in-depth study of Romanian prehistoric ceramics: Late Neolithic/Eneolithic pottery and clay materials from the Foeni Tell-Orthodox cemetery in Timiș county - 2023

The study aims to analyze pottery samples from the archaeological site Foeni Tell – Orthodox Cemetery, a late Neolithic & early Eneolithic multi-stratified site (three phases, covering the period 4720-4457 cal BC), also inhabited during the Early Bronze Age and Middle Ages. The site is located on the western edge of Foeni (Timiș county, Romania), on the eastern bank of the Timiș river. The analyzed samples come from 20 pottery shards, belonging to the Foeni cultural group (4920/4675–4580/4460 cal BC, corresponding to the later period of the Vinča culture, from the end of phase C to the end of phase D), and are representative of the categories (black, red, orange, painted) and types (fine, semi-fine, coarse) pottery associated with the cultural group; also analyzed were soil samples from the site. Complementary techniques were used in the analysis (TG/DTG, FT-IR, SEM, EDX, XRF, XRD and LIBS) to ascertain details regarding production technology and origin of the raw materials used in making the pottery. Results indicate the pottery was based on a high plasticity illite and montmorillonite paste, alongside albite, microcline, analcime, with heavy use of quartz and mica as temper. The clay composition shows an obvious link between the pottery and the local sampled source, implying the local production of Foeni type pottery. The firing temperature is uniform in Foeni pottery, estimated in the range of 550–600 °C, with a maximum firing temperature of 600 °C, with slightly higher temperatures for painted wares, of up to 620–630 °C, with a maximum temperature of 650 °C. The sole exception has an estimated firing temperature in excess of 900 °C.

Authors: Dan Vlase, Gabriela Vlase, Gabriela Ursuț, Paula Sfirloagă, **Florin Manea**, Mihael Budiul Andrei Rotaru, Titus Vlase.

Ceramics International Journal IF=5.2 Q1 RED

FDS Results for Selecting the Right Scenario in the Case of a Building Fire: A Case Study - 2022

On the evening of 5 April 2014, at a building located on 122 Tomis Boulevard, Constanta Municipality, Constanta County, Romania, a restaurant with its kitchen on the ground floor and a lounge bar located on the first floor experienced a fire, one that resulted in four victims and total building destruction. An important step in the technical-scientific expertise was the investigation of the incident based on the elaboration of two fire scenarios using the Fire Dynamic Simulator (FDS) model, which observed the fire propagation, the generation of toxic gases (carbon monoxide that disoriented and intoxicated the victims, three of whom could not save themselves) depending on the location of the plausible ignition sources, and explained the destructive effects. This paper focuses on the steps required to identify the critical conditions that led to the occurrence of the unwanted event. Based on the calculations, hypothesis, and FDS simulations, the mechanism of the event occurrence was considered to be strongly related to the onsite observations and criminal file issued by the state authorities.

Authors: **Florin Manea**, Emilian Ghicioi, Marius Cornel Suvar, Maria Prodan, Nicolae Ioan Vlasin, Niculina Sonia Suvar and Titus Vlase.

MDPI Fire Journal FI= 4 Q1 RED

Comparative thermal and hyphenated analysis of different mortars samples from Deva region - 2022

Thermal analysis and infrared spectroscopy are used in the study of various mortar samples clearly attributed to different historical periods in south-western Transylvania (Romania). The results obtained will clarify the character of certain samples, one Medieval period mortar sample, and a few Dacian kingdom period mortar samples. The results may contribute in the successful identification of the construction techniques used in the buildings from where the samples originate. The area under investigation is of great importance for Romanian heritage, so restorers have to find and produce mortars similar to those used in the building of our monuments. The thermoanalytic curves obtained in the case of possibly Dacian period and medieval mortars are presented in the following. Surface morphology (SEM) and elemental analysis (EDX) were investigated by scanning electron microscopy. Analysis was completed with XRF. The studies managed to solve the proposed objectives, namely demonstrated the presence of mortar and the use of limestone from the local site as a raw material to obtain the mortars analysed and listed above.



Furthermore, it provided new data useful for the interpretation of building techniques used in the region and period, though the data are not sufficient to completely clarify the relevant questions.

Authors: Gabriela Vlase, Dan Vlase, Iosif Vasile Ferencz, Paula Sfirloagă, Dorel Micle, **Florin Manea**, Titus Vlase

Journal of Thermal Analysis and Calorimetry FI=4.4 Q1 RED

[A case study on using the FDS tool for on-site fire investigation](#) – 2022

When investigating a fire type event, one has to have in mind that maybe the most important aspect is the identification of the source of ignition. Nowadays, commercial and open-source software are available and can be used during such investigations. The fire field model - Fire Dynamics Simulator (FDS) is one of the most popular numerical model used for fire investigation. The purpose of this paper is to demonstrate the importance of computer simulations when two hypotheses, Arson effect with multiple fireplaces and electric short circuit are taken into consideration as the cause of the fire. To virtually simulate the findings at the fire site, the FDS tool (Computational Fluid Dynamics) was used. Computational simulations for the two scenarios revealed that the multiple fireplaces scenario, the initial ignition at both the warehouse and the roof of the annex, illustrates the effects of the fire in a similar way to those found at the site, while the scenario with the initial source on the wall of the room with the electrical panel produces a fire located at the level of the construction and is not transmitted to the annex. Consequently, the results obtained validate the multiple outbreak (Arson effect) scenario.

Authors: Ligia Ioana Tuhuț*, Vlad Mihai Pasculescu, Nicolae Ioan Vlasin and **Florin Manea**

MATEC Web Conf. Volume 354, 10th International Symposium on Occupational Health and Safety 2021

[Background-oriented schlieren technique in experimental research regarding the effect of explosion pressure](#) – 2022

In the following paper, experimental results regarding the effect of explosion pressure are obtained from open field experiments with detonation of explosive charges. In addition, sensors that can be used for security applications for the detection of toxic and explosive compounds, as well as mobile systems for the detection of shock waves due to explosions were used to acquire more detailed results. Sensors are the main components in products and systems used to detect chemicals and volatile organic compounds (VOCs) targeting applications in several fields, such as: industrial production and the automotive industry (detection of polluting gases from cars, medical applications, indoor air quality control. The sensory characteristics of a robot depend very much on its degree of autonomy, the applications for which it was designed and the type of work environment. The sensors can be divided into two categories: internal status sensors (sensors that provide information about the internal status of the mobile robot); external status sensors (sensors that provide information about the environment in which the robot operates). Another classification of these could be: distance sensors, position sensors, environmental sensors - sensors that provide information about various properties and characteristics of the environment (example: temperature, pressure, color, brightness), inertial sensors.

Authors: Adrian Bogdan Șimon-Marinică, Nicolae-Ioan Vlasin, **Florin Manea**, Dorin Popescu.

MATEC Web Conf. Volume 354, 10th International Symposium on Occupational Health and Safety 2021

[NUMERICAL STUDY ON FIRE HAZARD ASSOCIATED TO EXTERNAL THERMAL INSULATION CLADDING SYSTEMS](#) – 2022

The significant increase in the price of energy resources leads today's society not only to a reconsideration of energy conservation policies but also to the encouragement of architects, builders, and building owners to use thermal insulation and exterior wall finishing systems. The design of thermal insulation for facades is a constructive decision, in which the layer with thermal insulation properties is fixed on the load-bearing side of the walls, with the help of adhesives and/or by mechanical means, followed by the application of a reinforcement and finishing layer. These operations have the role of ensuring the normative values of the thermal indicators specific to the wall structures, their protection against environmental influences, ensuring the optimal microclimate of the interior compartments of the building as well as providing an attractive, aesthetic appearance to the facades and structural elements.

Autori: Laurentiu Munteanu, Marius Cornel Șuvar, **Florin Manea**, Ligia Ioana Tuhuț, Andrada Denisa Matei

International Multidisciplinary Scientific GeoConference: SGEM



[The use of computational fluid dynamics applications to various flow problems](#) – 2022

To deal with any such applications, it is a must to understand the basic form and nature of the governing equations of fluid dynamics. It is imperative to fully understand the basic of numerical discretization that can be applied in equations. This paper aims to present some CFD tools that are the starting point in solving problems related to the field of fluid dynamics. During this work, we will note that anyone CFD technique will not be appropriate for all problems and the diverse mathematical nature of partial differential equations will ensure that some algorithms will best work for hyperbolic equations and others will do best for elliptic equations. In addition, this paper examines precisely how CFD techniques can be used to solve various flow problems. In other words, CFD applications requires the simultaneous knowledge of some major aspects, such as the governing flow equations and their mathematical behavior ...

Autori: Adrian Bogdan Șimon-Marinică, Vlad Mihai Păsculescu, **Florin Manea**, Zoltan Vass

MATEC Web of Conferences

[FLUID-STRUCTURE INTERACTION IN GASEOUS EXPLOSION SIMULATIONS](#) – 2022

According to ANSYS-developer of the Multiphysics platform for computer simulations-the FSI (Fluid-Structure Interaction) model can be used in all cases where a fluid encounters a solid structure, for example, wind gusts rotating a turbine, air washing the surface of a moving car etc. This method finds applications especially in the aeronautical and automotive industries, but also in medical research, such computer simulations track the influences of blood pressure and blood flow velocity in the veins. This paper deals with an extension of applying this method in a lesser field, namely in investigating gas explosion events through computer simulations. For this, in the virtual domain, a geometry similar to a house was built, in which an explosive atmosphere generated by an accidental natural gas leak was simulated. Following the source of initiation, the process of rapid combustion of combustible gas takes place, the ...

Autori: **Florin Manea**, Emilian Ghicioi, Laurentiu Munteanu, Bogdan Adrian Simon-Marinică

International Multidisciplinary Scientific GeoConference: SGEM

[Imaging documentation in the on-site investigation of explosion/fire events](#) – 2022

Explosion/fire investigation is a procedure that involves significant resources of time and activities. The most important of the basic activities performed by the investigator/investigation team is the on-site research, which, if properly performed, allows the elaboration, foundation, and verification of hypotheses, while playing a defining role in establishing the final conclusions regarding the place of initiation and cause of the event.

Autori: **Florin Manea**, Emilian Ghicioi, Ligia Ioana Tuhuț, Marius Cornel Șuvar

MATEC Web of Conferences

[Computational simulation of heat conduction on different surfaces](#) – 2021

The heat conduction from the initiation source to the adjacent surfaces, is a physical phenomenon worth considering in the process of analysing the fire. This complex phenomenon describes how the transport, the exchange, and the redistribution of the thermal energy are carried out. It is based on the theoretical knowledge that describes the initiation and fire evolution in time. The flames transfer heat from nearby surfaces through two distinct physical processes, namely convection and radiation. Another way of heat transfer is conduction, in which case the transfer of heat implies the existence of an environment that can be of a gaseous, liquid or solid nature. This paper illustrates a brief presentation of how the heat transfer is carried out, the influence of the three phenomena on the mechanism of initiation and development of the fire, and can be seen as well as a case study aimed at the computerized simulation of a ...

Authors: Gheorghe Daniel Florea, Nicolae Ioan Vlasin, Adrian Bogdan Șimon-Marinică, **Florin Manea**, Zoltan Vass

Journal MATEC Web of Conferences, Volume 324

[Finite element method to solve engineering problems using Ansys](#) – 2021

The Finite Element Analysis method, is a powerful computational technique for approximate solutions to a variety of real-world engineering problems having complex domains subjected to general boundary conditions. The method itself has become an essential step in the design or modelling of a physical phenomenon in various engineering disciplines. A physical phenomenon usually occurs in a continuum of matter (solid, liquid or gas) involving several field variables. The field variables vary from point to point, thus possessing an infinite number of solutions in the domain. The basis of finite volume method relies on the



decomposition of the domain into a finite number of subdomains (elements) for which the systematic approximate solution is constructed by applying the variational or weighted residual methods. In effect, finite volume method reduces the problem to that of a finite number of unknowns by dividing ...

Authors: AB Șimon-Marinică, NI Vlasin, **F Manea**, GD Florea

Journal MATEC Web of Conferences, Volume 342

EVALUATION OF EFFECTS RESULTING FROM INTENTIONAL OR ACCIDENTAL DETONATION OF EXPLOSIVE DEVICES BEFORE AND POST-EVENT – 2021

Unwanted effects of detonation of explosive materials (explosions) can occur due to deliberate actions (terrorist attack) or accidental.

Modelling the effects of the explosion on the environment and the urban neighboring, occupies an important place in global and national research programs for the modernization of techniques for the safe use of explosives, in order to combat and operatively counter accidental explosions or those based on their use for terrorist purposes.

The current trends are on the way to approximate as accurately as possible the manifestation of the effects of the explosion in order to anticipate the final results. This approach cannot be developed without addressing the interaction between explosive devices and the adjacent environment on which the effects caused by their detonation are manifested.

These studies are performed on theoretical models that allow the approximation of the real conditions, encountered in practice. Subsequently, with the help of the experimentally obtained results, a large number of solutions for the design of security measures involving the intentional or accidental detonation of explosive devices can be verified.

The paper presents a practical way to analyze, test, evaluate before and after the event of representative explosion scenarios, with the help of a specialized software application of American origin. Based on the results of grapho-analytical quantification of the specific

Authors: Gabriel Vasilescu, Robert Laszlo, Cristian Rădeanu, **Jr. Florin Manea**, Narcis Popa

XXIth International Multidisciplinary SGEM

PERMIS DE CONDUCERE

Permis de conducere: AM

Permis de conducere: B1

Permis de conducere: B

Permis de conducere: BE

Permis de conducere: C1

Permis de conducere: C1E

Permis de conducere: C

Permis de conducere: CE

CONFERINȚE ȘI SEMINARE

06/2026

Lector Curs de formare profesională a **experților, specialiștilor și tehnicienilor criminaliști** din cadrul Zonei 3 de pregătire profesională a **Ministerului Afacerilor Interne – Inspectoratul General al Poliției Române – Inspectoratul de Poliție Județean Cluj – Serviciul Criminalistic**

10/2025

Lector Curs de formare profesională (**Tehnici folosite în identificarea criminalistică a urmelor de explozivi și/sau acceleratori, în cazurile de explozii și incendii**) a **experților, specialiștilor și tehnicienilor criminaliști** din cadrul Serviciului de Cercetare la Fața Locului și Poliție Canină din cadrul **Ministerului Afacerilor Interne – Inspectoratul General al Poliției Române – Institutul Național de Criminalistică**

2020 – până în prezent – Colaborare cu formatori în domeniu

Lector Precursori de explozivi și droguri



10/07/2018 – 15/07/2018

Lector Lector în sesiunea de schimb de experiență organizată de **Inspectoratul de Poliție Județean Bihor** cu tema "**Cercetarea la fața locului a urmelor de explozii și/sau incendii** "

10/04/2018 – 11/04/2018

Lector Lector în sesiunea de schimb de experiență organizată de **Inspectoratul pentru Situații de Urgență Hunedoara** cu tema "**Cercetarea la fața locului a urmelor de explozii și/sau incendii** "

09/06/2017 – 10/06/2017

Lector Prezentarea tehnicilor de investigare la fața locului și a **procedurilor de expertizare tehnică a evenimentelor de tip explozie și/sau incendii** în cadrul seminarului organizat de **Institutul Național al Magistraturii**.

Prezentarea problematicii privind ascultarea expertului în cadrul procesului penal în cadrul seminarului organizat de Institutul Național al Magistraturii.

PROIECTE

2023 – ÎN CURS

EXH2 Creșterea capacității naționale de expertizare a exploziilor, a incendiilor, a echipamentelor în construcție antiexplozivă, a **materiilor explozive**, a proceselor tehnologice, a mediului înconjurător, precum și dezvoltarea de soluții de îmbunătățire a nivelului de securitate și sănătate în muncă specific aplicațiilor industriale periclitare de **atmosfere explozive**, generate de prezența hidrogenului.

2018 – 2022

EXTOX 2 Creșterea capacității naționale de **expertizare a exploziilor, a incendiilor**, a echipamentelor în construcție antiexplozivă, a **materiilor explozive**, a proceselor tehnologice, a mediului înconjurător, precum și dezvoltarea de soluții de îmbunătățire a nivelului de securitate și sănătate în muncă specific aplicațiilor industriale periclitare de **atmosfere explozive/toxice**.

01/01/2007 – ÎN CURS

Proiecte cercetare dezvoltare inovare Membru al echipei de cercetare în peste 50 de contracte de cercetare – dezvoltare cu finanțare de la operatorii economici și de la bugetul de stat prin 2 Programe Nucleu.

Membru al echipei de cercetare în peste **60 de rapoarte tehnice de expertiză (judiciare și extrajudiciare)**.

DISTINCȚII ONORIFICE ȘI PREMII

2023

MEDALIE DE AUR – International Exhibition INVENTCOR Scalable applicable system to optimize blasting parameters specific to safe exploitation technologies in surface mining operations

Inventatori: Laszlo Robert, Găman George Artur, Ghicioi Emilian, Pupăzan Gheorghe Daniel, Vasilescu Gabriel Dragoș, Gheorghiosu Edward Jan, Kovacs Attila, Rus Daniela Carmen, Rădeanu Cristian, Jitea Ilie- Ciprian, Ilici Ștefan, **Manea Florin**, Garaliu Bușoi Bogdan

2023

MEDALIE DE AUR – PRO INVENT Sistem scalabil aplicabil în vederea optimizării parametrilor de împușcare specifici tehnologiilor sigure de extragere a substanțelor minerale utile în exploatare miniere la zi.

Inventatori: Laszlo Robert, Găman George Artur, Ghicioi Emilian, Pupăzan Daniel, Vasilescu Gabriel, Gheorghiosu Edward, Kovacs Attila, Rus Daniela, Rădeanu Cristian, Jitea Ciprian, Ilici Ștefan, **Manea Florin**, Garaliu Bușoi Bogdan

2023

MEDALIE DE AUR – International Exhibition INVENTCOR Stand for determining the self-ignition temperature T_i of flammable liquids with high viscosity

Inventatori: Ghicioi Emilian, Găman George Artur, Pupăzan Daniel, Găman Angelica, Vlasin Nicolae, Păsculescu Vlad, Nicolescu Cristian, Laszlo Robert, Burian Constantin Sorin, **Manea Florin**, Florea Daniel, Nălboc Irina, Szollosi-Moța Andrei, Șuvar Marius, Gheorghiosu Edward, Kovacs Attila, Simion Alexandru, Morar Marius



2023

MEDALIE DE ARGINT – INFOINVENT Sistem de monitorizare și înregistrare continuă a parametrilor exploziilor de gaze

Inventatori: Nicolae-Ioan Vlasin, George Artur Găman, Emilian Ghicioi, Gheorghe Daniel Pupăzan, Angelica-Nicoleta Călămar, Vlad Mihai Păsculescu, Cristian Nicolescu, Robert Laszlo, Constantin Sorin Burian, **Florin Manea**, Gheorghe-Daniel Florea, Vasilica Irina Nălboc, Andrei Szollosi-Moța, Marius Cornel Șuvar, Zoltan Vass, Ligia-Ioana Tuhuț, Alexandru Florin Simion, Marius Simion Morar

2023

MEDALIE DE ARGINT – INFOINVENT Sistem de monitorizare și înregistrare continuă a parametrilor exploziilor de gaze

Inventatori: Nicolae-Ioan Vlasin, George Artur Găman, Emilian Ghicioi, Gheorghe Daniel Pupăzan, Angelica-Nicoleta Călămar, Vlad Mihai Păsculescu, Cristian Nicolescu, Robert Laszlo, Constantin Sorin Burian, **Florin Manea**, Gheorghe-Daniel Florea, Vasilica Irina Nălboc, Andrei Szollosi-Moța, Marius Cornel Șuvar, Zoltan Vass, Ligia-Ioana Tuhuț, Alexandru Florin Simion, Marius Simion Morar

2022

MEDALIE DE BRONZ – EUROINVENT Stand pentru determinarea temperaturii de autoaprindere T_i a lichidelor inflamabile cu vâscozitate ridicată

Inventatori: dr.ing. Ghicioi Emilian, dr.ing. Găman George Artur, dr.ing. Pupăzan Gheorghe Daniel, dr.ing. Călămar Angelica-Nicoleta, drd.ing. Vlasin Nicolae –Ioan, dr.ing. Păsculescu Vlad Mihai, ing. Nicolescu Cristian, ing. Laszlo Robert, dr.ing. Burian Constantin Sorin, **jr. Manea Florin**, ing. Florea Gheorghe-Daniel, dr.ing.chim. Nălboc Vasilica Irina, dr.chim. Szollosi-Moța Andrei, dr.ing. Șuvar Marius Cornel, dr.ing. Gheorghiosu Edward Jan, dr.ing. Kovacs Attila, ing. Simion Alexandru Florin, dr.ing. Morar Marius Simion

2022

MEDALIE DE AUR – EUROINVENT Sistem de monitorizare și înregistrare continuă a parametrilor exploziilor de gaze

2022

MEDALIE DE BRONZ – EUROINVENT Stand pentru determinarea temperaturii de autoaprindere T_i a lichidelor inflamabile cu vâscozitate ridicată.

18/08/2021

Premiul special al ediției XXI – SGEM WORLD SCIENCE SCHOLARLY SOCIETY EVALUATION OF EFFECTS RESULTING FROM INTENTIONAL OR ACCIDENTAL DETONATION OF EXPLOSIVE DEVICES BEFORE AND POST-EVENT

15/10/2020

Diploma și medalie de aur. – Salonul Internațional de Invenții și Inovații „TRAIAN VUIA” Timișoara Sistem de monitorizare și înregistrare continuă a parametrilor exploziilor de gaze

15/10/2020

Diplomă și medalie de argint – Salonului Internațional al Invențiilor, Cercetării, Inovării și Transferului Tehnologic – INVENTICA Stand pentru determinarea temperaturii de autoaprindere T_i a lichidelor inflamabile cu vâscozitate ridicată.

15/10/2020

Medalie de Aur și Diploma de Realizare – Salonul Internațional de Invenții și Inovații „TRAIAN VUIA” Timișoara Stand pentru determinarea temperaturii de autoaprindere T_i a lichidelor inflamabile cu vâscozitate ridicată

BREVETE DE INVENȚIE

2022

Stand pentru determinarea variațiilor de presiune la modificarea direcției de propagare a exploziilor gazoase în spații interconectate.

OSIM nr. A 2022 00705

Vlasin Nicolae, Găman George Artur, Ghicioi Emilian, Pupăzan Daniel, Găman Angelica Nicoleta, Păsculescu Vlad, Simon Bogdan Marinica, Florea Daniel, Tuhut Ligia, Prodan Maria, Șuvar Marius Cornel, Vass Zoltan, Munteanu Laurentiu, Chiușan Emeric, Nicolescu Cristian, **Manea Florin**.



2022

Cerere de brevet Sistem complex pentru determinarea comportamentului la aprindere și ardere a materialelor solide în atmosfere cu concentrații ridicate de oxigen.

OSIM nr. A 2022 00607

Ghicioi Emilian, Gaman George Artur, Suvar Marius Cornel, Daniel Pupazan, Florea Daniel, Simon- Bogdan Marinica, Prodan Maria, Vass Zoltan, Burian Sorin, Nicolescu Cristian, Șuvar Niculina Sonia, Gabor Dan, Nalboc Irina, Jurca Adrian, Colda Cosmin, Vlasin Nicolae, Pasculescu Vlad, **Manea Florin**, Pupăzan Gabriela, Păun Florin, Tuhut Ligia, Munteanu Laurentiu

2022

Stand pentru studierea aprinderii amestecurilor explozive gazoase prin efect corona

OSIM nr. A 2022 00706

Emilian GHICIOI, Irina NALBOC, Artur George GAMAN, Daniel PUPAZAN, Maria PRODAN, Nicolae VLASIN, Doru CIOCLEA, Sorin BURIAN, Robert LASZLO, Cristian NICOLESCU, Daniel FLOREA, Adrian JURCA, Adrian SIMON, Dan GABOR, Vlad PASCULESCU, Sonia SUVAR, Andrei SZOLLOSI, **Florin MANEA**, Ligia TUHUT, Cosmin COLDA, Marius SUVAR, Emeric CHIUZAN, Zoltan VASS.

2021

Sistem scalabil aplicativ în vederea optimizării parametrilor de împușcare specifici tehnologiilor sigure de extragere a substanțelor minerale utile în exploatarea miniere la zi

OSIM nr. A 2021 00702

Laszlo Robert, Găman George Artur, Ghicioi Emilian, Pupăzan Gheorghe Daniel, Vasilescu Gabriel Dragoș, Gheorghiosu, Edward Jan, Kovacs Attila, Rus Daniela Carmen, Rădeanu Cristian, Jitea Ilie- Ciprian, Ilici Ștefan, **Manea Florin**, Garaliu Bușoi Bogdan

2018

Cerere brevet de invenție: Sistem de monitorizare și înregistrare continuă a parametrilor exploziilor de gaze

OSIM nr: A/2018 00933

Dr.ing. Vlasin Nicolae-Ioan, Dr.ing.Găman George Artur, Dr.ing.Ghicioi Emilian, Dr.ing. Pupăzan Gheorghe Daniel, Dr.ing. Călămar Angelica-Nicoleta, Dr.ing. Păsculescu Vlad Mihai, Ing. Nicolescu Cristian, Ing. Laszlo Robert, Dr.ing. Burian Constantin Sorin, **Jr. Manea Florin**, Ing. Florea Gheorghe-Daniel, Dr.ing.chim. Nălboc Vasilica Irina, Dr.chim.Szollosi-Moța Andrei, Drd.ing. Șuvar Marius Cornel, Ing. Vass Zoltan, Tuhut Ligia – Ioana, Ing. Simion Alexandru Florin, Dr.ing. Morar Marius Simion

2018

Cerere de brevet de invenție Stand pentru determinarea temperaturii de autoaprindere Ti a lichidelor inflamabile cu vâscozitate ridicată.

OSIM nr: A/00910 din 19.11.2018

Dr.ing.Ghicioi Emilian, dr.ing.Găman George Artur, dr.ing. Pupăzan Gheorghe Daniel, dr.ing. Călămar Angelica-Nicoleta, drd.ing. Vlasin Nicolae –Ioan, dr.ing. Păsculescu Vlad Mihai, ing. Nocolescu Cristian, ing. Laszlo Robert, dr.ing. Burian Constantin Sorin, **Jr. Manea Florin**, ing. Florea Gheorghe-Daniel, dr.ichim. Nălboc Vasilica Irina, dr.chim.Szollosi-Moța Andrei, dr.ing. Șuvar Marius Cornel, dr.ing. Gheorghiosu Edward-Jan, dr.ing. Kovacs Attila, ing. Simion Alexandru Florin, dr.ing. Morar Marius Simion.

SIMPOZIOANE

18/10/2023 – 18/10/2023

11th edition of the International Symposium on Occupational Health and Safety – SESAM

Adrian Bogdan Simon-Marinica, **Florin Manea**, Zoltan Vass, Vlad Mihai Pasculescu, *Virtual experiments about hydrogen explosions with linear propagation.*



18/10/2023 – 18/10/2023

11th edition of the International Symposium on Occupational Health and Safety – SESAM

Cristian Raul Cioara, Ligia Ioana Tuhut, **Florin Manea**, *Practical skills and safety requirements in the profession of pyrotechnician.*

20/10/2023 – 21/10/2023

Conferința internațională de științe criminalistice cu tema „Criminalistica - pilonul principal al probațiunii judiciare în procesul penal și civil” Ediția aXI-a, București

Gabriela-Alexandra Ursuț, **Florin Manea**, Emilian Ghicioi, Titus Vlas, Gabriela Vlas, Laura Pitulice, *Identification of latent bloodstains from washed textile fabrics one day and eight months later using a luminol derivate and the ATR-FTIR technique.*

28/08/2023 – 31/08/2023

7th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC7), Brno

Dan Vlas, Gabriela Vlas, Gabriela Ursuț, Paula Sfirloaga, **Florin Manea**, Radu Lazău, Titus Vlas, *Analysis of late Neolithic pottery and clay samples from the Ronaț-Triaj site (Timișoara, Timis County, Romania) using hyphenated techniques.*

28/08/2023 – 31/08/2023

7th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC7), Brno

Dan Vlas, Gabriela Vlas, Gabriela Ursuț, Paula Sfirloaga, **Florin Manea**, Irina Nalboc, Titus Vlas, *Analysis through hyphenated techniques of Pottery samples from the settlements and burial ground at Pecica – East site (Pecica, Arad County, Romania).*

27/10/2022 – 29/10/2022

10th edition of the International Multidisciplinary Symposium “UNIVERSITARIA SIMPRO 2022

Adrian Bogdan Simon-Marinica, Vlad Mihai Pasculescu, **Florin Manea** and Zoltan Vass, *The use of computational fluid dynamics applications to various flow problems.*

27/10/2022 – 29/10/2022

10th edition of the International Multidisciplinary Symposium “UNIVERSITARIA SIMPRO 2022

Florin Manea, Emilian Ghicioi, Ligia Ioana Tuhut and Marius Cornel Suvar, *Imaging documentation in the on-site investigation of explosion/ fire events.*

04/08/2022 – 07/08/2022

22nd International Multidisciplinary Scientific GeoConference SGEM 2022 – Albena, Bulgaria.

Florin Manea, Emilian Ghicioi, Laurențiu Munteanu, Bogdan Adrian Șimon-Marinică, *Fluid-structure interaction in gaseous explosion simulations.*

04/08/2022 – 07/08/2022

22nd International Multidisciplinary Scientific GeoConference SGEM 2022 – Albena, Bulgaria.

Laurentiu Munteanu, Marius Cornel Suvar, **Florin Manea**, Ligia Ioana Tuhut, Andrada Denisa Matei, *Numerical study on fire hazard associated to external thermal insulation cladding systems.*

18/10/2021 – 19/10/2021

The 10th Edition of the International Symposium on Occupational Health and Safety – SESAM 2021

Ligia Ioana Tuhut, Vlad Mihai Pasculescu, Nicolae Ioan Vlasin and **Florin Manea**, *A case study on using the fds tool for on-site fire investigation.*



20/07/2021 – 24/07/2021

6th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC6) and 15th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2021) CEEC-TAC6 & Medicta2021 - 20th-24th of July 2021 in Split, Croatia

Dan VLASE, Gabriela VLASE, Gabriela URSUȚ, Paula SFIRLOAGA, **Florin Manea**, Andrei ROTARU, Titus VLASE.
Prehistoric ceramics: analysis of late Neolithic / Eneolithic pottery and clay samples from the Foeni Tell-Orthodox Cemetery (Timis County, Romania) using complementary techniques.

01/2021

XLII National Conference on Calorimetry, Thermal Analysis and Applied Thermodynamics, Udine, Italy – AICAT

Investigation of kinetics, thermal behaviors and evolved gases of gel explosive.

Authors: **F. Manea**, T. Vlase, M. Prodan, S. Șuvar, E. Ghicioi.

09/05/2019 – 10/05/2019

Book of Abstracts CATCAR28 & MoldTAC2, 9-10 May 2019, Timișoara, Romania

Adrian Bogdan Simon-Marinica, Emilian Ghicioi, Nicolae-Ioan Vlasin, **Florin Manea** and Dorin Popescu,
Background-oriented schlieren technique in experimental research regarding the effect of explosion pressure

CĂRȚI

2024 – 2024

CODURI MACRO FLUENT ÎN SIMULĂRILE EXPLOZIILOR DE GAZE - EDITURA INSEMEX: ISBN 978-606-8761-63-3

AUTORI: Nicolae Ioan VLASIN, **Florin MANEA**, Gheorghe Daniel FLOREA, Adrian Bogdan ȘIMON-MARINICĂ