



"Petroleum - Gas"
University of Ploiesti



Mechanical and Electrical
Engineering Faculty



University Politehnica of
Bucharest



"Vasile Alecsandri"
University of Bacau
Engineering Faculty



ARMR
**THE ROMANIAN ASSOCIATION
FOR FRACTURE MECHANICS**



The 24th National Symposium of Fracture Mechanics

15 - 16 November 2018

PROGRAMME



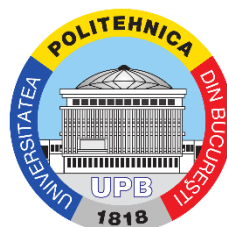
Petroleum - Gas University of Ploiesti,
Bucuresti Blvd., No. 39, Ploiesti, Romania



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The 24th National Symposium of Fracture Mechanics

THURSDAY, 15th of NOVEMBER 2018

- 09.00 – 10.00 Registration of participants and guests
Main hall of the **Petroleum-Gas University of Ploiesti**
- 10.00 – 12.00 The solemn meeting dedicated to the **Petroleum-Gas University of Ploiesti - 70 years of TRADITION, PROFESSIONALISM, PERFORMANCE**
Aula of the Petroleum-Gas University of Ploiesti
- 12.00 – 12.15 Opening of the **24th National Symposium of Fracture Mechanics**
Prof. Ph.D. Eng. Mihail MINESCU – vice-rector and president of the **Fracture Mechanics Association**
- 12.15 – 14.00 First plenary session – *Ap10 room*
Moderator – Prof. Ph.D. Eng Dan Mihai CONSTANTINESCU
- 14.00 – 15.15 Lunch break – *Canteen of the University*
- 15.15 – 16.45 Second plenary session – *Ap10 room*
Moderator - Prof. Ph.D. Eng. Vasile NĂSTĂSESCU
- 16.45 – 17.00 Coffee break – *Ap10 room*
- 17.00 – 18.30 Third plenary session – *Ap10 room*
Moderator - Prof. Ph.D. Eng. Alexandru PUPĂZESCU
- 19.00 Official Dinner - *Restaurant in the Central Hotel of Ploiesti*

FRIDAY, 16th of NOVEMBER 2018

- 10.00 – 12.00 General meeting of the **Romanian Fracture Mechanics Association**. Conclusions. Closure of the symposium.



The 24th National Symposium of Fracture Mechanics

12.15 – 14.00 First plenary session – *Ap10 room*

Moderator - Prof. Ph.D. Eng Dan Mihai CONSTANTINESCU

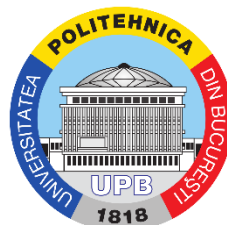
1.	Vasile Năstăsescu, Silvia Marzavan Military Technical Academy	Element free Galerkin method applied on calculus of the stress concentration factor
2.	Oana Alexandra Mocian, Dan Mihai Constantinescu, Marin Sandu, Ștefan Sorohan University POLITEHNICA of Bucharest	Failure particularities of sandwich panels with aluminum and composite face sheets in low-velocity impact
3.	Dragoș Alexandru Apostol, Dan Mihai Constantinescu University POLITEHNICA of Bucharest	Deformation bands and damage assessment in polyurethane foams subjected to compression testing
4.	Radu I. Iatan, Gheorghîța Tomescu, Angela Chelu University POLITEHNICA of Bucharest	Thermo - mechanical stress in toroidal shells with ring transversal section
5.	Alexandru Pupăzescu, Maria Tănase, Mihai Cristian Petre Petroleum-Gas University of Ploiesti	The necessity to correlate the measured values of stresses with the calculated values with numerical methods
6.	Alin Dinita*, Mihail Minescu*, Catalin Teodoriu**, Codrut-Stefan Sararu*** * Petroleum-Gas University of Ploiesti ** The University of Oklahoma *** OMV Petrom SA	Evaluation of changes in the physico-mechanical properties of fiberglass tubing working in different environments



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The 24th National Symposium of Fracture Mechanics

15.15 – 16.45 Second plenary session – *Ap10 room*

Moderator - Prof. Ph.D. Eng. Vasile NĂSTĂSESCU

1.	<p>Ion Durbacă*, Radu Iatan*, Carmen-Otilia Rusănescu*, Adrian-Costin Durbacă**, Alin Diniță***</p> <p>* Politehnica University of Bucharest ** Richard Alan Engineering Ltd, Dewsbury (UK), *** Petroleum-Gas University of Ploiesti</p>	<p>Aspects regarding finite element analysis of a structural model of pressure vessel with layered lid and cellular polymeric core</p>
2.	<p>Viorel Goanță, Marian Mareș</p> <p>Technical University "Gheorghe Asachi" from Iași</p>	<p>Experimental determination of fracture toughness values for the three material batches</p>
3.	<p>Viorel Goanță, Marian Mareș</p> <p>Technical University "Gheorghe Asachi" from Iași</p>	<p>Experimental determination of fatigue lifetime duration for the three material batches</p>
4.	<p>Claudia Niculae, Maria Tanase</p> <p>Petroleum-Gas University of Ploiesti</p>	<p>Study of the kinematics of the traveling block-crown block mechanism of the drilling rig equipped with two drawworks</p>
5.	<p>Alin Diniță, Ibrahim Naim Ramadan, Mihai Albeanu</p> <p>Petroleum-Gas University of Ploiesti</p>	<p>Experimental stand for internal pressure testing of pipes</p>
6.	<p>Ibrahim Naim RAMADAN, Bogdan ILIE</p> <p>Petroleum-Gas University of Ploiesti</p>	<p>Evaluation of technical condition for fired heater tubes – case study</p>



The 24th National Symposium of Fracture Mechanics

17.00 – 18.30 Third plenary session - *Ap10 room*

Moderator - Prof. Ph.D. Eng. Alexandru PUPĂZESCU

1.	Vasile Radu RATEN ICN Pitesti	Development of the multilayer feedforward neural network model to predict the accumulated transverse strain of CANDU pressure tubes
2.	Dorin RADU Transilvania University of Brasov	Fitness for service (FFS) approach applied to welded steel structures
3.	Ioan Popa, Lavinia Silvia Stanciu Petroleum-Gas University of Ploiesti	Dynamic models for determining the drill string behaviour at axial vibrations
4.	Marius Gabriel Petrescu, Alin Dinita, Razvan George Ripeanu Petroleum-Gas University of Ploiesti	Aspects regarding the influence of the exploitation conditions on the technical state of the thermal power plants
5.	Alin Dinita, Mihaela Caltaru, Marius Badicioiu Petroleum-Gas University of Ploiesti	Analysis of the causes that led to the fracture of two tool joint box from drill pipe
6.	Evelyn Nicolae, Alexandru Pupăzescu, Alin Dinita Petroleum-Gas University of Ploiesti	Numerical evaluation of the geometric configuration of the steel connector of fiberglass sucker rods