

## IZVEŠTAJ XV REDOVNE GODIŠNJE SKUPŠTINE DIVK

**XV redovna godišnja skupština** DRUŠTVA ZA INTEGRITET I VEK KONSTRUKCIJA „Prof. dr Stojan Sedmak“ (DIVK) održana je 9. maja 2016. godine, sa početkom u 14:00, u svečanoj sali Instituta za ispitivanje materijala u Beogradu, Bulevar vojvode Mišića 43. Skupštinu je vodio prof. dr Aleksandar Sedmak, predsednik DIVK.

### Dnevni red:

1. Izveštaj Upravnog odbora o radu u 2015. godini
2. Izveštaj o radu časopisa Integritet i vek konstrukcija u 2015.
3. Finansijski izveštaj za 2015. godinu
4. Izveštaj Nadzornog odbora
5. Organizacija rada DIVK, članstvo i članarina
6. Plan rada u 2016. godini
7. Razno

Iako je inicijalni predlog bio da promocija monografije i predavanja uslede u nastavku skupštine, usvojen je predlog da se najpre održi promocija monografije **Mehanika loma interfejsa dva materijala**, autora prof. dr Jelene Đoković i prof. dr Ružice Nikolić. O knjizi i naučnom radu autora govorili su prof. dr Marko Rakin i prof. dr Aleksandar Sedmak, a o knjizi još i prof. dr Ružica Nikolić. Zatim je održano i predavanje Miodrag Pavišića: **Vremenska funkcija oštećenja i procena rizika dostizanja graničnog stanja konstrukcije**. Usledilo je zasedanje Skupštine po usvojenom dnevnom redu.

U nastavku slede važnije odluke XV godišnje skupštine DIVK i najvažnije informacije o radu DIVK u 2015. godini.

### Sastanci UO

Održano je pet sastanka UO u toku 2015. godine. Na sastancima je razmatrana problematika časopisa „Integritet i vek konstrukcija“, organizacija seminara i predavanja, DIVK foruma, zatim učešće na naučnim konferencijama, realizacija plana rada, ostale izdavačke aktivnosti i tekuća pitanja, a posebno organizacija međunarodne konferencije TEAM 2015.

### Seminar DIVK

- DLHE, Bajina Bašta - Preručac, 18. septembar 2015:
- Promocija DIVK monografije „Cevovod pod pritiskom za RHE Bajina Bašta“, T. Tošić
  - Očuvanje integriteta i produženje veka turbinske i hidromehaničke opreme, M. Arsić
  - Zavod za zavarivanje: 57 godina iskustva u zavarivanju i IBR, Goran Sofronić.

### Međunarodna konferencija TEAM 2015

DIVK je izuzetno uspešno organizovao međunarodnu konferenciju TEAM 2015, koja je održana 15-16. oktobra 2015. na Mašinskom fakultetu Univerziteta u Beogradu.

Učestvovali su naučnici, stručnjaci iz različitih oblasti kao i profesori i studenti iz 24 zemlje: Srbija, Slovačka, Hrvatska, Mađarska, Alžir, Rumunija, Bosna i Hercegovina, Indija, Češka, Turska, Francuska, Letonija, Crna Gora, Austrija, Makedonija, Slovenija, Norveška, Libija, Irak, Kina, Poljska, Holandija, Bugarska i Nemačka.

Ukupan broj radova prihvaćen i recenziran od strane Naučnog odbora je iznosio 142 rada od strane 383 autora. Oralne prezentacije održane su paralelno u 2 sale, sa 79 naučnih radova. Putem poster publikacije prezentovano je 34 rada, dok su 24 rada objavljena bez učešća autora na konferenciji. Ukupan broj učesnika na konferenciji iznosio je 132 učesnika.

U sklopu konferencije održan je koktel prijem učesnika, kao i gala večera i posete muzeju Nikola Tesla i Hramu Svetog Save. Mašinski fakultet je iskoristio ovu priliku da svim učesnicima konferencije predstavi svoje laboratorije i kapacitete kroz obilazak fakulteta.

## XV DIVK ANNUAL GENERAL ASSEMBLY - REPORT

**XV Annual General Assembly** of the SOCIETY FOR INTEGRITY AND LIFE “Prof. Dr Stojan Sedmak” (DIVK) was held on May 9, 2016. at 14:00, in the Assembly Hall of the Institute for Materials Testing in Belgrade. The Assembly was chaired by Prof. Dr Aleksandar Sedmak, DIVK President.

### Agenda

1. Report from the Managing Report on activities in 2015
2. Journal ‘Structural Integrity and Life’ report for 2015
3. Financial Report for 2015
4. Report from the Supervisory Board
5. DIVK organization, membership and fees
6. Plan of activities in 2016
7. Miscellaneous

Even though the initial suggestion was that the promotion of the monography and the invited lectures should take place after the Annual Meeting, instead it was decided that the monography **Fracture Mechanics of a Two-Material Interface** by Prof. Dr Jelena Djokovic and Prof. Dr Ruzica Nikolic are to be held first. Prof. Dr Marko Rakin and Prof. Dr Aleksandar Sedmak spoke of the book and the authors’ scientific work, along with Prof. Ruzica Nikolic. Then, Miodrag Pavisic held a lecture: **Time-dependent damage function and risk assessment for reaching the limit state of a structure**. Following this, the Annual Meeting took place according to the adopted schedule.

Important decisions from the XV DIVK Annual Assembly and most important DIVK activities are reported by DIVK Executive Committee in 2015:

### Board Meetings

Five Board meetings were held during 2015. The issue of the journal ‘Structural Integrity and Life’ was discussed, the organisation of seminars and lecturers were prepared, including DIVK Forum lectures, participation at scientific events, and particularly the organisation of TEAM 2015 conference.

### Seminar DIVK

- DLHE, Bajina Bašta - Preručac, 18. September 2015:
- Promotion of DIVK monograph ‘Pressure Pipeline for RHPP Bajina Basta’, T. Tosic
  - Maintaining integrity and life extension of turbine and hydro-mechanical equipment, M. Arsic
  - Serbian Welding Institute: 57 years of experience in welding and NDT, Goran Sofronic

### International Conference TEAM 2015

DIVK successfully organised the international conference TEAM 2015, held on October 15-16, 2015 at the University of Belgrade, Faculty of Mechanical Engineering.

Scientists and experts from various fields participated along with professors and students from 24 countries: Serbia, Slovakia, Croatia, Hungary, Algeria, Romania, Bosnia and Herzegovina, India, Czech Republic, Turkey, France, Latvia, Montenegro, Austria, Macedonia, Slovenia, Norway, Libya, Iraq, China, Poland, The Netherlands, Bulgaria and Germany.

A total number of papers accepted and reviewed by the Scientific Committee was 142, from 383 authors. Oral presentations were held simultaneously in 2 halls, including 79 scientific presentations. Additionally, there were 34 posters, whereas 24 papers were published without author participation. The total number of participants at the conference was 132.

As part of the Conference, a welcoming reception with cocktail took place, as well as a gala dinner and including visits to the Nikola Tesla museum and the Church of St Sava. The Faculty of Mechanical Engineering took the opportunity to present its laboratories and capacities to all conference participants.

Veliku zahvalnost dugujemo generalnom sponzoru konferencije, kompaniji SHIMADZU koja je pored podrške prezentovala svoju opremu u sklopu izložbenog prostora konferencije. Svi radovi sa konferencije objavljeni su u zborniku radova *Proceedings of the 7<sup>th</sup> International Scientific and Expert Conference of the International TEAM Society* (ISSN 978-86-7083-876-5) uređenog od strane: Aleksandar Sedmak, Snežana Kirin, Zoran Radaković i Simon Sedmak. Posebnu zahvalnost dugujemo Štampariji TMF, koja je odštampala Zbornik u odličnom kvalitetu u gotovo nemogućem roku.

DIVK konferencije posvećene prof. dr Stojanu Sedmaku, osnivaču i prvom predsedniku DIVK održane su u dva termina:

9. novembra 2015. na TMF:

- Ljubica Milović: *Puzanje - aktuelni problemi*
- Bojan Međo: *Mikromehaničko ponašanje materijala*
- Blagoj Petrovski: *Mismеčing zavarenih spojeva čelika povišene čvrstoće*
- Milica Tošić: *Sećanje na prof. dr Stojana Sedmaka, osnivača i prvog predsednika DIVK*

23. novembra 2015. na MF nastavak:

- Zijah Burzić: *Visokociklični zamor*
- Vencislav Grabulov: *Energija stvaranja i energija rasta prsline – instrumentirano klatno*

#### **Učešće DIVK u radu ESIS**

Aleksandar Sedmak (potpredsednik ESIS od 2014.) učestvovao je u radu ESIS i u 2015:

- Torino – dogovor za ECF21
- Sastanak ExCo u Kataniji, 4-5.12.2015.

#### **Učešće na konferencijama**

- V. Grabulov, A. Sedmak i veći broj članova DIVK: Temišvar, juni 2015, sekcija posvećena prof. dr Stojanu Sedmaku u okviru IIW SEE 3<sup>rd</sup> Conference
- Lj. Milović, Simon Sedmak: NT2F15, Alžir.

#### **Časopis „Integritet i vek konstrukcija“ (IVK)**

Na vreme su izašla iz štampe sva tri broja časopisa u toku 2015. godine. O radu časopisa u 2015. sačinjen je, i na godišnjoj skupštini DIVK prezentiran, poseban izveštaj (Z. Radaković).

#### **Ostala izdanja DIVK**

- Jelena Đoković, Ružica Nikolić: *Mehanika loma interfejsa dva materijala*

We owe special gratitude to the general sponsor of the conference, the SHIMADZU company, which had in addition to providing support, also presented their equipment at the conference exhibition. All conference papers were published in the *Proceedings of the 7<sup>th</sup> International Scientific and Expert Conference of the International TEAM Society* (ISSN 978-86-7083-876-5), edited by: Aleksandar Sedmak, Snežana Kirin, Zoran Radakovic and Simon Sedmak. We would also like to express special thanks to the press room of Faculty of Technology and Metallurgy, who had managed to print a high quality Proceedings within an impossible timeframe.

DIVK conferences dedicated to Prof. Dr Stojan Sedmak, the founder and first president of DIVK, were held on two occasions: November 9, 2015, at the Faculty of Technology and Metallurgy:

- Ljubica Milovic: *Creeping – current problems*
- Bojan Medjo: *Micromechanical material behaviour*
- Blagoj Petrovski: *Mismatching in high strength steel welded joints*
- Milica Tosic: *Remembering Prof. Dr Stojan Sedmak, the founder and first president of DIVK*

November 23, 2015, at the Faculty of Mechanical Engineering:

- Zijah Burzic: *High-cycle fatigue*
- Vencislav Grabulov: *Crack initiation and growth energy – instrumented pendulum*

#### **DIVK participation in ESIS**

Aleksandar Sedmak (ESIS vice-president since 2014) had participated in ESIS work in 2015, as well.

- Torino – ECF21 arrangements
- ExCo meeting in Catania, Dec. 4-5, 2015.

#### **Conference participation**

- V. Grabulov, A. Sedmak and several DIVK members: Timisoara, June 2015, section dedicated to Prof. Dr Stojan Sedmak within the IIW SEE 3<sup>rd</sup> Conference.
- Lj. Milovic, Simon Sedmak, NT2F15, Algeria.

#### **Journal ‘Structure Integrity and Life’**

All three issues were published on time during 2015. A special report related to the journal activities in 2015 was presented at the Annual Meeting by Z. Radakovic.

#### **Other DIVK publications**

- Jelena Djokovic, Ruzica Nikolic: *Fracture Mechanics of a Two-Material Interface*

M. Tošić, A. Sedmak

### **Izveštaj sa sastanka ESIS Saveta, 21. juna 2016, Katanija, Italija**

Na sastanku je učestvovalo 37 predstavnika. Nakon uvodne reči predsednice Lesli Benks-Sils, i usvajanja Zapisnika sa prethodnog sastanka, koji je pripremio Bamber Blekmen, sekretar je sazvao glasačko telo Skupštine.

- i. Austrija: R. Pipan
- ii. Bugarska: D. Angelova
- iii. Češka republika: L. Kunc
- iv. Mađarska: P. Trampus
- v. Izrael: L. Benks-Sils
- vi. Italija: F. Jakoviello
- vii. Norveška: Ž. Žang
- viii. Poljska: A. Neimic (za D. Kocanda)
- ix. Portugalija: P. Moirera
- x. Rumunija: L. Maršavina
- xi. Rusija: R. Goldstein
- xii. Srbija: A. Sedmak
- xiii. Slovenija: N. Gubeljak
- xiv. Španija: A. Martin-Meizoso

### **Report from the ESIS Council Meeting, June 21, 2016, Catania, Italy**

The meeting was attended by 37 representatives. After welcome words from president Leslie Banks-Sills, and the acceptance of Minutes of the last meeting, prepared by Bamber Blackman, the voting members of Council were established by the secretary.

- i. Austria: R. Pippan
- ii. Bulgaria: D. Angelova
- iii. Czech Republic: L. Kunz
- iv. Hungary: P. Trampus
- v. Israel: L. Banks-Sills
- vi. Italy: F. Iacoviello
- vii. Norway: Z. Zhang
- viii. Poland: A. Neimitz (for D. Kocanda)
- ix. Portugal: P. Moirera
- x. Romania: L. Marsavina
- xi. Russia: R. Goldstein
- xii. Serbia: A. Sedmak
- xiii. Slovenia: N. Gubeljak
- xiv. Spain: A. Martin-Meizoso

- xv. Švedska: P. Stele (za J. Larson)
- xvi. Švajcarska: A. Bruner
- xvii. Ukrajina: H. Nikiforčín
- xviii. Ujedinjeno Kraljevstvo: G. Vilijems
- xix. TC3: S. Vantadori (za A. Carpineri)
- xx. TC4: G. Vilijems
- xxi. TC5: I. Petrov
- xxii. TC9: G. Fero
- xxiii. TC10: J. Toribio
- xxiv. TC13: P. Jasnij
- xxv. TC24: S. Bereta
- xxvi. Potpredsednik: F. Jakovielo
- xxvii. Potpredsednik: A. Sedmak
- xxviii. Sekretar: B. Blekmen

Dve stipendije u okviru ECF21 su dobili Donato Firao i Antoni Kinloch. Od učesnika se očekivalo da podnesu još nominacija za buduće nagrade.

Griffithova medalja je dodeljena Robertu Goldsteinu, dok je Velerovu medalju dobio Paul Paris. Laslo Tot je dobio Nagradu za životno delo; Andrzej Neimic je izabran za Počasnog člana ESIS. Ove nagrade će biti uručene tokom gala večere u okviru konferencije ECF21. Odbor za podršku mladim naučnicima podržalo je 17 od ukupno 26 prijavljenih učesnika.

Bilo je reči i o tome da sada postoje četiri časopisa vezana za ESIS (*Engineering Failure Analysis*, *Engineering Fracture Mechanics*, *International Journal of Fatigue* i nedavno dodat *Theoretical and Applied Fracture Mechanics*). Članovi su podstaknuti da objavljuju radove u ovim časopisima. Potpisan je novi ugovor između ESIS i Elsevier na period od 2 godine, od januara 2016 do decembra 2017. Po ovom ugovoru, ESIS pristaje na objavljivanje 5 specijalnih izdanja godišnje, čime ESIS podržava TC sa 1,500 € po specijalnom izdanju.

Spisak najnovijih SI objavljenih od strane Elsevier koji su proistekli iz aktivnosti ESIS je pripremio Valerij Šljanikov (ExCo-Izdavaštvo) i predstavio skupštini. ESIS će finansijski pomoći izdavanje Zbornika tokom naredne dve godine. Maksimalna podrška će iznositi 2000 €.

Tehnička komisija TC12 o probabilističkim metodama trenutno nije aktivna i potrebno ju je ponovo aktivirati.

Na ECF21 je učestvovalo 640 delegata i objavljena su 472 rada u *Procedia Structural Integrity*. Neposredno pre konferencije je održana letnja škola sa 87 učesnika iz 18 zemalja.

Beograd je na prethodnoj skupštini izabran za održavanje ECF22. Datum održavanja je 26-31. avgusta 2018, u organizaciji Srpskog nacionalnog odbora (DIVK) – Društvo za integritet i vek konstrukcija „Prof. dr Stojan Sedmak“.

Broj članova tokom perioda 2014-2016 bio je sledeći: 507 (2014), 562 (2015), 228 (2016) članova do danas. Analizom broja članova od 2014. do 2015, zaključeno je da je većinu članova činilo 9 nacionalnih grupa sa preko 20 članova tokom obe godine. Još 5 nacionalnih grupa imalo je oko 10 članova svake godine tokom 2015. i 2016. nažalost, veliki broj bitnih zemalja imale su manje od 10 članova i stoga nisu ispunile uslove za glasanje na skupštini. Primeri su Francuska, Nemačka i Holandija.

Održano je glasanje o promeni prvog Statuta (jedan član-jedan glas i glasanje preko zastupnika). Jednoglasno je izglasano od strane svih 28 glasača da se statut promeni, kao i druga izmena vezana za opisivanje vrste članstva (kako bi se one pojasnile i kako bi se izbacio pojam Korporativnog člana) i treća predložena izmena, koja bi obuhvatila posebne reference za blogere.

Detaljni predlog o organizovanju ECF23 predstavio je Pedro Moreira, nacionalni predstavnik Portugala. Predloženi datumi su 28. jun – 3. jul, 2020. Mesto održavanja je grad Funčal na ostrvu Madeira, u Portugalu. Ovaj predlog podržan je od strane portugalskog Društva za materijale. Predlog je prihvaćen uz odobravanje.

- xv. Sweden: P. Ståhle (for J. Larsson)
- xvi. Switzerland: A. Brunner
- xvii. Ukraine: H. Nykyforchyn
- xviii. United Kingdom: G. Williams
- xix. TC3: S. Vantadori (for A. Carpineri)
- xx. TC4: G. Williams
- xxi. TC5: Y. Petrov
- xxii. TC9: G. Ferro
- xxiii. TC10: J. Toribio
- xxiv. TC13: P. Yasniy
- xxv. TC24: S. Beretta
- xxvi. Vice-President: F. Iacoviello
- xxvii. Vice-President: A. Sedmak
- xxviii. Secretary: B. Blackman

The two new fellowships being awarded at ECF21 were to Donato Firrao and Anthony Kinloch. Attendees were encouraged to submit more nominations for future awards.

The Griffith medal was to be awarded to Robert Goldstein, and the Wöhler medal to Paul Paris. The Award of Merit was presented to László Tóth; Andrzej Neimic would be elected an Honorary Member of ESIS. These awards would be presented at the ECF21 Conference dinner. Committee for the Support of Young Scientists decided to support 17 scientists out of a total of 26 who had applied for support.

There are now four ESIS affiliated journals (*Engineering Failure Analysis*, *Engineering Fracture Mechanics*, *International Journal of Fatigue* and the recent addition, *Theoretical and Applied Fracture Mechanics*). Members are encouraged to publish in these journals. New contract between Elsevier and ESIS has been signed covering the period January 2016 to December 2017. ESIS agrees to publish 5 special issues per year, for which ESIS supports the TCs by € 1 500 per special issue.

A list of recent SIs published by Elsevier originating from ESIS activities had been prepared by Valery Shlyannikov (ExCo-Publications) and the list was presented to the Council. ESIS will assist financially with the cost of *Procedia* for the next two years. The maximum support available would be € 2000.

TC12 on probabilistic methods is not currently active and needs to be re-instated.

ECF21 had attracted 640 delegates and 472 short conference papers are published in *Procedia Structural Integrity*. A summer school was held before the conference attracting 87 participants from 18 countries.

At the last council meeting, Belgrade is selected for the ECF22 venue in two years' time. The dates are August 26-31, 2018, hosted by the Serbian National Committee DIVK - Society for Structural Integrity and Life "Prof. Dr Stojan Sedmak".

Membership numbers for 2014-2016 are as follows: 507 (2014), 562 (2015), 228 (2016) members so far. Analysing the membership figures for 2014-2015, it was reported that the clear majority of members are from 9 national groups each having over 20 members each year. A further 5 national groups had around 10 members each year. Disappointingly, several important countries had fewer than 10 members and thus failed to achieve a vote on Council. Examples are France, Germany and The Netherlands.

Voting was conducted for the first change of Statute (one-member one-vote and proxy voting). Unanimously, 28 votes were in favour of the change and for a proposed change concerning the description of membership types (to add clarity and remove the term Corporate Member) and for a third proposed change – to include specific reference to the blogger.

A detailed proposal to host ECF23 was presented by Pedro Moreira, the national representative of Portugal. The proposed dates are June 28 – July 3, 2020. The location would be the town of Funchal on the island of Madeira, Portugal. The proposal is

Indikativni predlog za ECF24 je prezentovan od strane Željka Božića, predstavnika Hrvatske, za održavanje ECF24 2022. godine. Predloženo mesto održavanja je Dubrovnik u Hrvatskoj. Željku je zahvaljeno na prezentaciji i pozvan je da izloži detaljniju prezentaciju na sastanku Skupštine za dve godine u okviru ECF22.

supported by the Portuguese Society of Materials. The proposal was agreed by acclamation.

Indicative proposal for ECF24 was presented by Zeljko Bozic, representing the National Group of Croatia, to host ECF24 in 2022. The proposed venue is the city of Dubrovnik in Croatia. Zeljko was thanked for his presentation and was invited to give a more detailed presentation at the Council Meeting in two years' time at ECF22.

M. Tošić, A. Sedmak

## TEAM 2016 CONFERENCE – IZVEŠTAJ

TEAM 2016, 8 međunarodna naučna i ekspertna konferencija održana je u Trnavi u periodu 19–21. oktobra 2016, od strane TEAM Društva u saradnji sa slovačkim Univerzitetom za tehnologiju, Fakultetom za inženjerstvo materijala i tehnologiju u Trnavi, u čijim prostorijama je konferencija i održana. Predsedavajući organizacionog odbora bio je Doc.Ing. Jozef Barta, a organizaciju su pomogli prof. Jozef Peterka, prof. Milan Maronek i prof. Dagmar Caganova. Na međunarodnoj TEAM 2016 konferenciji u Trnavi učestvovali su naučnici i stručnjaci iz različitih oblasti, kao i profesori i studenti iz 9 zemalja: Slovačka, Hrvatska, Srbija, Mađarska, Rumunija, Rusija, Kina, Slovenija i Sejšeli.

Ukupan broj radova prihvaćenih i recenziranih od strane Naučnog odbora TEAM konferencije je bio 72 od 205 autora. Oralne prezentacije održane su paralelno u 2 sale, na kojima su predstavljena 34 rada, a poster sekciji još 18 radova, dok je 20 radova objavljeno bez učešća autora na konferenciji. U okviru konferencije održana je godišnja Skupština TEAM društva, kao i obilazak laboratorija Fakulteta za inženjerstvo materijala i tehnologiju u Trnavi.

Svi radovi sa konferencije objavljeni su u Zborniku radova TEAM 2016 (*Proceedings of the 8<sup>th</sup> International Scientific and Expert Conference*, ISSN 978-80-8096-237-1) u vidu elektronske verzije na USB, koju su uredili: Miloš Čambal, Milan Maronek, Maria Domankova i Krunoslav Miroslavljević.

Predstavnici Srbije osvojili su ovom prilikom nagradu za najbolji rad:

- Uroš Tatić, Katarina Čolić, Aleksandar Sedmak, Žarko Mišković, Ana Petrović: *Procedures and evaluation of the stress strain fields on the locking compression plates.*

kao i najbolji multidisciplinarni rad:

- Srđan Tadić, J. Barta, Simon Sedmak, Sanja Petronić, Aleksandar Sedmak: *Finite elements investigation of laser welding in a keyhole mode.*

TEAM 2018 Conference će se održati u Novom Sadu.

Sve ostale informacije, uključujući fotografije sa konferencije, se nalaze na sajtu: [www.teamsociety.eu](http://www.teamsociety.eu).



Dodela nagrade Urošu Tatiću za najbolji rad  
Uros Tatic receives the award for best paper

## TEAM 2016 CONFERENCE – REPORT

TEAM 2016, 8<sup>th</sup> International Scientific and Expert Conference was held in Trnava on Oct. 19–21, 2016, by TEAM Society in cooperation with the Slovak University of Technology, Faculty of Materials Science and Technology in Trnava, where the conference was held. The president of the organising committee was Doc.Ing. Jozef Bárta, and the organisation was supported by Prof. Jozef Peterka, Prof. Milan Maronek and Prof. Dagmar Caganova. The international conference TEAM 2016 at Trnava hosted scientists and experts from various fields, as well as professors and students from 9 countries: Slovakia, Croatia, Serbia, Hungary, Romania, Russia, China, Slovenia and Seychelles.

The total number of papers accepted and reviewed by the TEAM Conference Scientific Committee was 72 from 205 authors. Oral presentations were held simultaneously in 2 halls, with 34 presentations, and another 18 posters, while 20 papers are published without author participation at the conference. The annual TEAM Society Meeting took place also at the conference, with a tour of the laboratories of the Faculty of Materials Science and Technology in Trnava.

All the conference papers are published in the *Proceedings of the 8<sup>th</sup> International Scientific and Expert Conference* (ISSN 978-80-8096-237-1) in electronic format on USB device, edited by: Miloš Čambál, Milan Marónek, Mária Dománková and Krunoslav Miroslavljević.

Participants from Serbia were awarded for best paper:

- Uros Tatic, Katarina Colic, Aleksandar Sedmak, Zarko Miskovic, Ana Petrovic: *Procedures and evaluation of the stress strain fields on the locking compression plates.*

and had also received the award for best multi-disciplinary paper:

- Srđjan Tadic, J. Barta, Simon Sedmak, Sanja Petronic, Aleksandar Sedmak: *Finite elements investigation of laser welding in a keyhole mode.*

The TEAM 2018 Conference will be held in Novi Sad, Serbia.

For all other information, including conference photos, please visit: [www.teamsociety.eu](http://www.teamsociety.eu).



Obraćanje predsednika DIVK i predsednika TEAM Society  
President DIVK and President of TEAM Society

## ISCAME 2016 CONFERENCE – IZVEŠTAJ

Glavni cilj ISCAME konferencije je da svake godine okupi inženjere, naučnike, istraživače, stručnjake iz akademske zajednice i industrije, da predstave svoja originalna dela i podele iskustva iz oblasti mašinstva i nauke.

ISCAME 2016, 4. Međunarodna naučna konferencija o novinama u mašinstvu, održana je u Debrecenu, Mađarska, u periodu 13-15. oktobra 2016, u organizaciji Mašinskog fakulteta, Univerziteta u Debrecenu, Mađarska. Predsedavajući organizacionog odbora bio je Tamas Mankovic.

Svi radovi sa konferencije objavljeni su u Zborniku radova ISCAME 2016, (ISSN 978-963-473-917-3).

Predstavnici Srbije su predstavili 3 rada:

- Đorđević Branislav, Tatić Uroš, Sedmak Simon, Milošević Miloš, Sedmak Aleksandar: *Digital image correlation technique application on welded joint - advantages and disadvantages*
  - Sedmak Simon, Milović Ljubica, Jovičić Radomir, Đorđević Branislav, Džindo Emina, Zrilić Milorad, Maneski Taško: *Non-contact monitoring of fatigue crack growth via digital image correlation method*
  - Tatić Uroš, Đorđević Branislav, Sedmak Simon, Vučetić Filip, Arandelović Mihajlo: *Technological and economic analyses of a different designs solutions of a pipeline supporting structure*
- Sve ostale informacije se nalaze na strani:

<http://eng.unideb.hu/userdir/gepezsz/iscame/>

## ISCAME 2016 CONFERENCE – REPORT

Each year, the ISCAME major goal is to gather engineers, scientists, researchers, experts from the academic world and industry, to present their original work and share their experience from the field of mechanical engineering and science.

ISCAME 2016, the 4<sup>th</sup> International Scientific Conference on advances in mechanical engineering, was held in Debrecen, Hungary, from Oct. 13-15, 2016, and was organised by The Department of Mechanical Engineering, University of Debrecen, Hungary. The president of the organising committee was Tamás Mankovits.

All conference papers are published in the Proceedings of ISCAME 2016 (ISSN 978-963-473-917-3).

Participants from Serbia had presented 3 papers:

- Djordjevic Branislav, Tatic Uros, Sedmak Simon, Milosevic Milos, Sedmak Aleksandar: *Digital image correlation technique application on welded joint - advantages and disadvantages*
- Sedmak Simon, Milovic Ljubica, Jovicic Radomir, Djordjevic Branislav, Dzindo Emina, Zrlic Milorad, Maneski Tasko: *Non-contact monitoring of fatigue crack growth via digital image correlation method*
- Tatic Uros, Djordjevic Branislav, Sedmak Simon, Vucetic Filip, Arandjelovic Mihajlo: *Technological and economic analyses of a different designs solutions of a pipeline supporting structure*

For further information please visit:

<http://eng.unideb.hu/userdir/gepezsz/iscame/>

## 20. Godišnjica radionice integriteta konstrukcija – izveštaj

20. Godišnjica Radionice za integritet konstrukcija održana je u Miškolcu u Mađarskoj, u periodu od 13-15. oktobra 2016. godine. Baj Zoltan neprofitna ustanova za primenjena istraživanja, bila je domaćin ovog skupa, u organizaciji Djendjiver Lenke i Savaj Sabolc. Usmeno je predstavljeno 35 radova (2 iz Srbije), dok je u poster sekciji bilo još 12 radova (1 iz Srbije: *Design of polymeric electrolyte membrane reformer*, koji je predstavio Simon Sedmak). Spisak radova je dat u tabeli.

## 20<sup>th</sup> Anniversary Structural Integrity Workshop - report

The 20<sup>th</sup> Anniversary Structural Integrity Workshop was held in Miskolc, Hungary, on Oct. 13-15, 2016, at the Bay Zoltán Nonprofit Ltd. for Applied Research, organised by Gyongyver Lenkey and Szavai Szabolcs. Oral presentations included 35 papers (2 from Serbia), while the poster session included 12 papers (1 from Serbia: *Design of polymeric electrolyte membrane reformer*, presented by Simon Sedmak). A list of papers is given in the table below.

Some insights into the 20 years of the research team on structural integrity at BZN	Gyöngyvér Lenkey
Structural Integrity: What does it mean?	László Tóth, Péter Trampus
The first steps of fracture mechanics research in Hungary	Ernő Czoboly
European Structural Integrity Society – Perspectives	Leslie Banks-Sills
Technical bases of the Paks NPP's long term operation	Sándor Rátkai
Structural integrity researches for nuclear safety	Ákos Horváth
Contribution of ISI / NDE to long term plant operation	Péter Trampus
Challenges in material integrity, ageing and performance – NUGENIA perspective	Elisabeth Keim, Tomas Nicak, Sebastien Blasset
EDF R&D multiscale approach to assess the integrity of NPP components	Al Mazouzi Abderrahim
Structural integrity of materials under different Loading Conditions	Siegfried Schmauder
Structural integrity calculations of large scale pressure vessels in Hungary	Tamás Fekete
Statistical analysis for interface fracture and delaminating failure of composites	Leslie Bank-Sills
Peridynamics for predicting failure of composites under static and cyclic loading	Madenci Erdogan
Analysis of wear processes for different loading and sliding conditions	István Páczelt, Zenon Mróz, Attila Baksa
Measurement of plastic zones and their role on VHCF damage and fracture	Stefanie Tschegg
Behaviour of steel Nionikral-70 exposed to the effects of the low-cycle fatigue	<b>Ljubica Milović, Vujadin Aleksic, Bojana Aleksic</b>
The effect of residual stress on surface fatigue crack propagation	Y. Matvienko, A.S. Chernyatin, I.A. Razumovsky
Fatigue crack propagation under combined fatigue loading of stainless steel	Nenad Gubelj, Darko Jagarinec, Primož Štefane
Fatigue crack propagation in residual stress fields or elastic plastic fracture	Zeljko Bozic
The influence of residual stresses on fracture behaviour of PRNB	Drazan Kozak, D. Damjanovic, Nenad Gubelj
The influence of cold expanding holes on aluminium alloy plates	Petro Yasniy
New deformation and stress measurement possibilities for structural integrity assessment	F. Gyimesi, A. Szigethy, V. Borbély, R. Kiss
Assessments of pipe defects using improved failure assessment diagrams (FAD)	Guy Pluvinage
The master failure curve on pipe steel with constraint parameters	Hadj Meliani Mohammed
Hydrogen effect on fatigue crack growth and serviceability assessment of pipelines	Ihor Dmytrakh, V.V. Panasyuk
Determination of plain-strain fracture toughness at elevated temperatures	János Lukács
Modelling intergranular cracks in (neutron irradiated) polycrystalline aggregates	Leon Cizelj
Accounting for uncertainties in irradiated fracture toughness determination	I.Orynyak, M. Zarazovskii, I. Dubyk, A. Oryniak
Neutron irradiation embrittlement, testing and effect on the lifetime of RPV-s.	F. Gillemot, A.Kovács, L.Horváth, I.Szenthe



The accelerated degradation of pipeline steels for a prediction of mechanical properties	Hryhoriy Nykyforchyn
Micropillar testing of advanced ceramics	Jan Dusza
Monitoring of gas pipeline steels degradation using the electrochemical approach	Olha Zvirko
Structural integrity and fatigue life assessment of hip implants	<b>A. Sedmak, K. Čolić, K. Legweel</b>
Role of imperfections in explanation of ballooning tests of Zr-cladding tubes	Dániel Antók, Tamás Fekete
Field measurements and stress assessments for thin-walled pipe with out-of-roundness.	I. Orynyak, A. Bohdan, A. Novikov
Simulation of the welding process of dissimilar weld of reactor pressure vessel Mock-up	Levente Tatár
Material characterization and numerical simulation of a dissimilar metal weld	Szabolcs Szávai

## ICF14 – 14<sup>TH</sup> INTERNATIONAL CONFERENCE ON FRACTURE RHODES, GREECE, JUNE 18-23, 2017



ICF14 shall be held on the island of Rhodes, Greece, June 18-23, 2017, and is organized by Chair Professor Dr Emmanuel Gdoutos and working team under co-hold with the International Congress on Fracture. The objects of the Congress are to foster research in the mechanics and phenomena of fracture, fatigue, and strength of materials for development of materials which are better failure-resistant than the conventional materials and development of design and assessment methods of components, structures and systems that are better for structural integrity; to promote international co-operation among scientists and engineers in the field, and integration of the many disciplines involved in such research; and to provide means whereby results of such efforts may be publicly communicated.

### Scientific Program - Conference Tracks

#### • Track 1 - Nanomaterials and Nanostructures

*Fracture mechanisms of nanostructured materials; Failure of MEMS and NEMS; Failure of thin films; Failure of electronic materials; Failure of nanocomposites; Failure analysis of nanodevices; Nanoindentation for fracture of nanostructured materials*

#### • Track 2 - Engineering Materials and Structures

##### Track 2a: Physical Aspects of Failure

*Fracture and fatigue at atomistic and molecular scales; Cleavage fracture Ductile fracture; Cyclic deformation and crack initiation; Fatigue crack growth and thresholds; Fretting and contact fatigue; Surface treatment for failure resistance; Elevated temperature and creep failure; Stress corrosion cracking and corrosion fatigue; Hydrogen embrittlement; Irradiation; Environmental effects on fatigue/fracture*

##### Track 2b: Structure and Component Integrity

*Experimental fracture mechanics; Computational and numerical fracture mechanics; Nonlinear fracture mechanics; Damage mechanics; Mesoscale fracture mechanics; Structural integrity assessment; Lifetime prediction; Scaling and size effects; Multiple and complex flows; Probabilistic approaches to reliability and durability; Dynamic, high strain rate, or impact fracture; Mixed-mode and multiaxial fracture and fatigue; Variable-amplitude fatigue; Residual stress effects and structural integrity; Non-destructive evaluation (NDE); Failure investigation and analysis; Novel testing and evaluation techniques; Databases, expert systems and software; Codes and standards*

##### Track 2c: Failure of Materials

*Ceramics; Ceramic matrix composites; Metal matrix composites; Polymers and polymeric composite materials; Sandwich structures; Smart materials and structures; Biomaterials and wood; Biomedical materials; Coatings; Welds; Ice; Concrete, rock and aggregate materials; Geophysical and tectonic problems*

### Special Symposia

*In Honour of David Taplin, by Ashok Saxena*

*In Honour of Grigory Barenblatt, by Robert Goldstein, Viggo Tvergaard, and Zdenek Bazant*

*In Memory of Tony Kelly, by Sir Colin Humphreys*

*In Memory of Stojan Sedmak, by Aleksandar Sedmak*

### Venue

Rodos Palace Hotel, International Convention Center  
Trianton Ave, Ixia, P.O.Box 121, GR-851 00 Rhodes, Greece  
Tel: (+30) 22410 25222, Isdn Tel: (+30) 22410 97222, Fax: (+30) 22410 25350, E-mail: [info@rodos-palace.gr](mailto:info@rodos-palace.gr)  
<http://www.rodos-palace.com>



### Important dates

Abstract submission: Nov. 30, 2016

Abstract notification of acceptance: December 2016

Conference: June 2017

### Contacts

Professor Emmanuel E. Gdoutos (ICF14 Chair)  
School of Engineering, Democritus University of Thrace, Xanthi  
GR-67100, Greece  
E-mail: [egdoutos@civil.duth.gr](mailto:egdoutos@civil.duth.gr)  
Fax: +30-25410-79652

### Publications

Conference proceedings will be published on CD ROM and bound Abstracts volume. Authors are invited to submit full-length versions of the papers for consideration for publication in the journals:

*Engineering Fracture Mechanics*  
*International Journal of Fracture*  
*Theoretical and Applied Fracture Mechanics*  
*International Journal of Fatigue*  
*Engineering Failure Analysis*  
*Materials and Design*  
*Challenge Journal*  
*Frattura ed Integrità Strutturale*

Special issues of these journals will be devoted to the conference themes.

The ICF14 website: <https://www.icf14.org/>

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