



European Structural Integrity Society

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EDITORIAL BY THE ESIS PRESIDENT

Dear friends,

2022 was yet another difficult year! It started as a promising year to get rid of Covid 19, but the war in Ukraine took over bad news. Yet, ECF23, did go on, and turned out to be a great comeback of successful events under the auspice of ESIS



The Council has selected a new President, myself, and new Vice-president, Filippo Berto, while Liviu Marsavina was re-elected. Even though I wanted to keep the same ExCo, some changes were inevitable. Thus, it is the right moment to praise leaving ExCo member, Bamber Blackman for being such a good and efficient Secretary in previous 10 years and Zhiliang Zhang for his liaison activities in the last 8 years. We are also grateful to Valery Shlyannikov for numerous editions of Newsletters and for taking care of all our publications in the last 8 years. I hope that his leave is temporary. In any case, we will continue working for the benefit and further success and advancement of ESIS. Before coming back to ESIS activities, let me praise 3 great people who paved the way to success:

- Leslie Banks-Sills, who showed us how to rebuild ESIS and make a great society,
- Francesco Iacoviello, who showed us how to improve even already excellent performance,
- Stojan Sedmak, who introduced Fracture Mechanics in Serbia and ex-Yugoslavia.

As the new ESIS President, I will focus on:

- Stronger support for young scientists.
- Further improvement of publishing activities.
- Cooperation with National Societies.
- Further strengthening the role of TCs.
- Cooperation with related Societies.
- making even greater ECFs, No. 24 in 2024 in Zagreb, and No. 25 in 2026 in Athens, which will be the jubilee one, both by its number and by the fact that ESIS (former EGF), was established in 1976 in Poitiers.

To achieve these goals, we have strengthened ExCo with a few new members and new roles. So, let me express my warm welcome to Filippo as the new Vice-President, Pedro as the new Secretary, Leslie, Jianying and Milos as the new liaison officers, Stavros as the ECF26 Chairman and Vittorio, who will temporarily replace Valery and help Beppe at the same time. Finally, let me also express my gratitude to all "old" ExCo members, who accepted to continue their hard voluntary work! I would have not accepted the Presidency if I could not count on help from Francesco, Liviu, Leslie, Beppe, Pedro, Zeljko and Per.

Let me now briefly remind you about the main events and achievements in the previous period, as well as about our future activities.

The ESIS Publishing House (ESIS-PH) has been established to offer to all members, TCs and National Groups (NGs), the possibility to publish online, free of charge, technical publications, monographies, scholarly editions, Ph.D. thesis and edited volumes. All the volumes are available on the platform with a CC-BY license (completely free of charge for the readers) and have their own ISBN code (if requested). For each category of publication, reviewing procedures are defined in the website (<https://www.esis-ph.eu/>).

The ESIS YouTube channel offers the video recordings of the presentations of the last ESIS Summer Schools and ECF events (<http://www.youtube.com/c/EuropeanStructuralIntegritySociety>)

Thanks to Francesco, we are now just a click away from all publications related to ESIS. As an example, please visit: <https://www.structuralintegrity.eu/site/events/special-issue>. Other options in this menu comprise:

- Web TV
- ECF Proceedings
- ESIS Procedures
- Crack Path conferences
- Technical Publications
- Book Series 1999-2003
- Procedia Structural Integrity
- Elsevier Journals affiliated with ESIS
- OA Journals affiliated with ESIS
- ESIS Publishing House

Procedia Structural integrity released 14 new issues (Vol. 28-41), the newest one containing papers from the 2nd Mediterranean Conference on Fracture and Structural Integrity:

<https://www.sciencedirect.com/journal/procedia-structural-integrity/vol/41/suppl/C>.

ESIS is often requested to support conferences, most of which are part of TC or NG activities. To coordinate the dates and avoid conflicts, we suggest to TC and NG Chairs to coordinate their meetings with Aleksandar Sedmak. To encourage TCs and NGs to take advantage of this option, ESIS confirms the support part of the publication costs (1500 euros as ESIS contribution to TCs and NGs).

Once or twice a year, ESIS NEWSLETTER is sent to all the ESIS members. In addition, an ESIS NEWS is sent monthly. Also a Facebook page, <https://www.facebook.com/ESISweb/>, and a Telegram channel (t.me/ESISweb) are active, to continuously update the ESIS members.

Our blogger, Per Ståhle, has reviewed many papers from Engineering Fracture Mechanics. We have an agreement with Elsevier which allows open access of these papers for 6 months. Hence, everyone can have access to them and join in the discussion on the blog. Your comments are welcome and may be posted on the blog: <http://imechanica.org/node/9794>.

Google Account: ESIS activated an agreement with Google. All the ESIS members receive (completely free of charge) the credentials for an "improved" Google account, for example with a Google Drive of 30 Gb instead of the standard 15 Gb (the value of this service is about 50 euros per year).

Many new services are active in the G-Suite (e.g. Classroom, <https://support.google.com/edu/classroom/?hl=en#topic=6020277>, useful for the organization of Summer Schools) and other services are improved if compared to the "standard" Google services. More info can be found at:

- Google Sites:

<https://gsuite.google.com/learning-center/products/sites/get-started/>

- Google Drive:

<https://gsuite.google.com/learning-center/products/drive/>

- Google Learning center:

<https://gsuite.google.com/learning-center/>

It is important to underline that with the activation of the G Suite account, ESIS members:

- automatically guarantee that he/she will not misuse the account;

- understand that he/she is not authorized to send emails using the @structuralintegrity.eu account as ESIS.

These new accounts allowed us to activate new services:

- Each Technical Committee has now its own "mini-website", with the possibility to update the information directly.

For each Technical Committee, a shared Google Drive folder is active. Filling the Form: <http://www.structuralintegrity.eu/site/activity/tc-subscription>, and joining the TCs (one or more, it doesn't matter!), each ESIS member is able to share his/her publications (in the pre-print format), and each ESIS member will be always updated about the papers published by the other TC members on the topics of his/her interest and, obviously, about the TC activities. To share your papers in G Drive:

<https://drive.google.com/file/d/0B6daTFbjZI5RG9VTnZMzZnfbkU/view?usp=sharing>

In order to be always updated about the activities organized by the ESIS TCs, now the ESIS members can join the mailing lists managed directly by the TCs Chairmen. The procedure is simple: The ESIS member has only to select the TC of his/her interest in the list he/she will find in all the ESIS NEWS we send monthly (also more than one!).

I would like to encourage you to join ESIS. In the ESIS website www.structuralintegrity.eu you will find different possibilities, starting from the "Individual membership" (30 euros). In the ESIS website you can find the list of the advantages of being an ESIS member ... I can confirm you that, thank to your continuous support, we are a successful Society!

I wish to remind you that being an ESIS member has many advantages. First of all, you belong to a great researcher community focused on the structural integrity issues published in many journals and publication media, such as:

- Elsevier journals affiliated with ESIS: Engineering Failure Analysis, Engineering Fracture Mechanics, International Journal of Fatigue & Theoretical and Applied Fracture Mechanics. We encourage all members to publish articles in these journals.

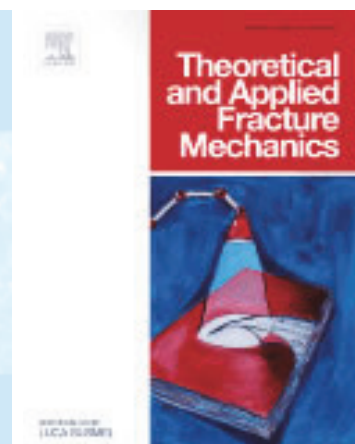
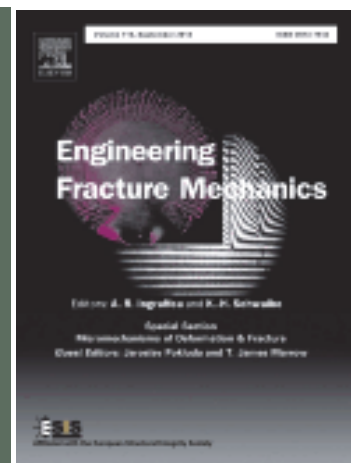
- Procedia Structural Integrity (published by Elsevier, but directly coordinated by ESIS. Born in 2016, 41 issues have been published up to now. The journal is indexed in Scopus, Web of Science and Google Scholar.

Let me also remind you that Statute offers now the possibility for non-European countries, as well as "group of countries" to join ESIS.

I wish you all the best for 2023, hoping that 2023 will be better than couple of previous ones!

Aleksandar Sedmak

Elsevier journals affiliated with ESIS



ESIS Council Meeting

28th June 2022

MINUTES

Attendees: There were 39 attendees, out of 50 eligible voting representatives.

Welcome, Francesco Iacoviello.

The president, Francesco Iacoviello, chaired the meeting and thanked all the Council members for connecting to this on-line meeting.

Minutes of the last meeting, Bamber Blackman and Pedro Moreira.

The minutes of the last Council meeting (online, during VECF1) were accepted as correct.

Establish voting members, Pedro Moreira.

The voting members of Council were established based upon the ESIS Statutes and memberships for 2020-2022). Proxy Representation had been Identified earlier. The voting members were:

1. Algeria: Mohammed Hadj Meliani
2. Austria: O. Kolednik (for R. Pippan)
3. Belgium: R. Talem
4. Bulgaria: D. Angelova
5. Croatia: Ž. Božić
6. Czech Republic: S. Seitl
7. Finland, S. Pallaspuro
8. France: J. Besson
9. Germany: M. Wormwald
10. Greece: S. Kourkoulis
11. Hungary: T. Fekete (for P. Trampus)
12. Israel: Z. Yosibash (for D. Sherman)
13. Italy: V. Di Cocco (for F. Berto)
14. Lithuania: A. Adumitroaie
15. Norway: J. He (for Z. Zhang)
16. Poland: G. Lesiuk
17. Portugal: P. Moreira
18. Romania: S. Galatanu (for L. Marsavina)
19. Russia: V. Shlyannikov
20. Serbia: M. Djukić (for A. Sedmak)
21. Slovenia, N. Gubelj
22. Spain: L. Tavera (for F. Galvez Diaz-Rubio)
23. Sweden: J. Bergström (for T. Sjogren)
24. Switzerland: A. Brunner
25. Turkey: T. Yalcinkaya
26. United Kingdom: E. Martinez-Paneda (for J. Marrow)
27. Ukraine: H. Nykyforchyn
28. TC1: U. Zerbst
29. TC2: A. Jivkov
30. TC3: S. Vantadori
31. TC4: J.A. Pascoe (for B. Blackman & A.J. Brunner)
32. C5: Y. Petrov
33. TC6: P. Hvizdos (for J. Duzsa)
34. TC7: V. Infante (for R. Clegg)
35. TC8: proxy (for J. Besson)
36. TC9: G. Ferro

37. TC10: O. Zvirko (for J. Toribio)
38. TC11: H. Klingelhofer
39. TC12: J. Correia (for A. Sedmak)
40. TC13: Mirela Lordachescu (for L. Marsavina)
41. TC14: V. Silberschmidt
42. TC15: F. Berto
43. TC16: V. Mantic (for Z. Yosibash)
44. TC17: P. Tavares (for P. Trampus)
45. TC18: P. Ferro
46. TC20: C. Bertolin
47. TC24: S. Beretta
48. Vice-President: A. Sedmak
49. Vice-President: L. Marsavina
50. Secretary: B. Blackman

The voting quota was satisfied, according to the Statute, since 39 out of 50 voting members were present..

President's Report (2018-2022): Francesco Iacoviello

- a. Francesco gave a summary of the main achievements over the period of his presidency (2018-2022).
- b. There had been four modifications to the ESIS Statutes: groups of countries were now permitted to join ESIS; ESIS now accepts non-European members; ESIS president and VP elections and elections for TC chairpersons and secretaries.
- c. The number of TCs had been increased to 20 and there was additional support for TCs and NGs (e.g. € 1500 for each PSI). However, some TCs remain problematic.
- d. The services for members had been greatly expanded: e.g. Google Workspace, access to ESIS proceeds, website, etc.
- e. There had been 41 issues of PSI published with 3,274 papers included.
- f. ESIS now supports the following Open Access Journals: Frattura ed Integrita Strutturale (Fracture and Structural Integrity); and Integritet i vek konstrukcija (Structural Integrity and Life). These journals are without cost to the authors or readers and are not published by a professional publisher, but are peer reviewed.
- g. The Covid-19 global pandemic had posed major challenges requiring ECF23 to be postponed from 2020 and an on-line conference VECF1 to be conceived and successfully run in 2020.
- h. The war in Ukraine had posed additional challenges to ESIS. In a series of meetings, ExCo had expressed various views in response to the request by the Ukrainian NG to expel Russian scientists from ESIS and cease all co-operation. In the light of this situation, FI took a president's decision that ESIS remain apolitical.

Membership report (2018-2022), Filippo for Bamber Blackman

- Membership figures were reported for the years 2020-2022 (updated).
- In 2020, ESIS had 653 members and € 5,901 had been received in fees.
- In 2021, ESIS has 559 members and € 8,202 had been received in fees.
- In 2022, ESIS had 637 members and € 6,092 had been received in fees to date.
- Membership fee income fluctuates as some countries pay every two years, others pay for several years, etc.
- Highlights were reported as: most NGs are functioning and reporting annual memberships to ESIS. Benelux is formed to represent Belgium and Netherlands. However, Benelux did not report membership in 2022 due to covid. Non-European nations are now able to join, e.g. Algeria (2022), and interest from Australia has been received.

Elsevier Special Issues and Publications,

Valery Shlyannikov

- The list of special issues to date was circulated for discussion. All was going well.

Treasurer report, Beppe Ferro & Francesco

Iacoviello

- It was reported that the ESIS deposit was currently € 316,666.
- FI reported that a new contract with Elsevier had been signed.
- The budget for 2023 comprised income from Elsevier (€ 25,000) and membership fees (€ 5,000); total income (€ 30,000).
- Budgeted expenses were ExCo meetings (€ 5,000); Support for publication of 6 PSIs total € 9,000; publication of SIs for Elsevier journals (€ 11,000); Miscellaneous (€5,000); total (€ 30,000).

BeNeLux group. Approval as a full Council member (art. II.7) Francesco Iacoviello

- BeNeLux was approved as a full Council member by a vote of members.

Report on ECF23. Pedro Moreira

- The Summer School had gone very well, with 90 attendees (including speakers) from 27 countries.
- The venue arrangements at the conference hotel were looking very good.
- There had been 505 registrations (including plenaries), 62 from Germany, 45 from Italy, 42 from the UK, and 27 from France.
- PM presented details of the ESIS support for researchers to attend ECF23.

Report by the Fellows Committee ECF23 (2022) and VECF1 (2020) Francesco Iacoviello

- ESIS fellows, 2020: Dov Sherman; Zohar Yosibash; Donka Angelova; Liviu Marsavina; Andreas Brunner.
- ESIS fellows, 2022: Filippo Berto; Alfonso Carlos Fernández-Canteli; Pedro Moreira; Aleksandar Sedmak

Report by the Committee for the Support of Scientists at ECF22, Pedro Moreira

- 39 scientists were supported by waiving the Conference fee, 29 also by additional 200 €.

Report on ECF24, Zeljko Bozic

- ZB gave a brief update on preparations for ECF24 which will be held in Zagreb, Croatia, during 24-30 August 2024.
- The website address is www.ecf24.fsb.hr

Proposals and vote for ECF25 Venue

- Bid 1- GSEMM. A bid to host ECF25 to Athens was presented by the Greek National Committee.
- Bid 2- Spanish Group. A bid to host ECF25 to Seville was presented by the Spanish National Committee.
- Bid 1 (GSEMM) was approved by a vote of Council to host ECF25 in Athens in 2026.

ESIS President (2022-2026) election.

- Aleksandar Sedmak was elected for the new President of ESIS.

ESIS Vice-Presidents (2022-2026) election

- Liviu Marsavina and Filippo Berto were elected Vice-Presidents

ECF23 Report

The International European Conference on Fracture (ECF23) was organized from 27 June to 1 July 2022. ECF has the mission to promote research focused on topics related to all fracture phenomena, structural integrity and monitoring, and contribute for the improvement of the reliability of systems, through focused R&D in applied mechanics.

This conference was the 23rd edition of a globally recognized event. The importance of the event required us to apply for its organization in 2014 in its edition in Trondheim. Since then, it has passed through Catania and Belgrade, now having Funchal as its destination in 2022, after the postponement due to the pandemic situation in 2020.

Summer School was also included in this organization from the 25th to the 26th of June, held at the premises of the Rectory of the University of Madeira. This first event was dedicated to young students and researchers, who can enjoy the experience of renowned speakers and exchange mutual experiences.

Chairmen

Pedro Moreira



Luis Reis

Venue

The conference was organized in the Hotel Pestana Casino Park, Madeira Island – Portugal.



Programme

Fourteen plenary lectures were presented at the conference by recognized Speakers, two of them through online system. 96 parallel sessions were carried out, with a total 457 presentations. Also, 17 symposia were carried out, run by TCs. A social meeting was offered to all participants in the event at the end of each conference day.

Plenary speakers

[Prof. Pedro Camanho](#)

Faculty of Engineering of The University of Porto
Portugal



[Prof. Ali Fatemi](#)

The University of Memphis, Memphis, TN
USA



[Prof. Jianying He](#)

Faculty of Engineering, Norwegian University of Science
and Technology (NTNU)
Norway



[Prof. Bamber Blackman](#)

Imperial College London
UK



[Prof. Vadim Silberschmidt](#)

Wolfson School of Mechanical, Electrical and
Manufacturing Engineering,
Loughborough University, UK



[Prof. Claudio Ruggieri](#)

Faculty of Engineering – University of Sao Paulo Brazil



[Prof. Zhiliang Zhang](#)

Dept. of Structural Engineering
Norwegian University of Science and Technology (NTNU)
Trondheim, Norway



[Prof. Filippo Berto](#)

Dept. of Mechanical and Industrial Engineering
Norwegian University of Science and Technology (NTNU)
Trondheim, Norway



[Prof. Leslie Banks-Sills](#)

The Dreszer Fracture Mechanics Laboratory
School of Mechanical Engineering, Faculty of Engineering
Tel Aviv University
Israel



[Prof. Youshi Hong](#)

Institute of Mechanics,
Chinese Academy of Sciences
China



[Prof. Meinhard Kuna](#)

Institute of Mechanics and Fluid Dynamics,
TU Freiberg,
Germany



[Prof. Dominique Leguillon](#)

CNRS and Sorbonne University
France



[Prof. Giuseppe Andrea Ferro](#)

Department of Structural, Building and Geotechnical
Engineering, Politecnico di Torino
Italy



[Prof. Michael Vormwald](#)

Technische Universität Darmstadt
Germany



Main figures

- Total of 616 abstracts received
- 14 Plenary talks
- 17 symposia
- 96 parallel sessions
- Abstracts schedule for oral presentation: 457
- Abstract schedule for Poster: 71
- 505 registrations from 40 countries

ESIS support for researchers

The ExCo has agreed that ESIS will support the active participation of scientists to ECF23 by waiving the Conference fee for up to 40 delegates who require financial assistance to attend. Preference was given for young researchers, but consideration was also given to retirees without travel funds. A total of 39 delegates had their registration fees supported by ESIS.

ESIS awards (2020 – VECF1)

Griffith medal - Prof. Leslie Banks-Sills, TU Tel Aviv, Israel

Woehler medal – Prof. Filippo Berto, NTNU, Trondheim, Norway

Award of Merit – Prof. Uwe Zerbst, BAM, Berlin, Germany

Honorary Membership – Prof. Andrey Shanyanskiy, TU, Athens, Russia

ESIS awards (2022 – ECF23)

Griffith medal - Prof. Meinhard Kuna, TU Freiburg, Germany

Woehler medal – Prof. Youshi Hong, CAS, Beijing, China

Award of Merit – Prof. Jose Correia, INEGI, Porto, Portugal

Honorary Membership – Prof. Stavros Kourkoulis, TU, Athens, Greece

Conference awards

Young scientist competition (9 works submitted)

Best Paper: Lisa Claeys, Ghent University, Hydrogen increased ductility due to martensitic transformation versus hydrogen embrittlement in 304L stainless steel: the role of the deformation rate.

Best Runner-Up: Examilioti Theano, Leuphana University of Lüneburg, University of the Aegean, Numerical investigation of laser beam-welded AA 2198 joints under different artificial ageing conditions.

Best presentation: Francesca Berti, Politecnico di Milano, Nickel-Titanium peripheral stents: can fracture mechanics shed light on their fatigue failure?

TCs symposia organizer award

Gold Medal: Sabrina Vantadori, TC3 Symposium: Fracture and fatigue in presence of cracks or stress concentrators

Silver Medal: Filippo Berto, TC15 Symposium: Structural Integrity of Additive Manufactured Components

Bronze Medal: Milos Djukic, Motomichi Koyama, TC10b Symposium Hydrogen Embrittlement

Best poster award

Zhuo Xu, Tao Wu, Filippo Berto, Seyed Mohammad Javad Razavi: Wall thickness effect on the quasi-static compression and fatigue properties of Inconel 718 uniform sheet-based lattice structures fabricated via Selective Laser Melting.

Aman Prasad, Isabelle Braems, Ranim Mohamad, Frédéric Christien, Franck Tancret: Ab initio study of hydrogen embrittlement in binary nickel alloys.

Aman Prasad, Isabelle Braems, Ranim Mohamad, Frédéric Christien, Franck Tancret: Atomistic and Mesoscale Simulation of Crack-Dislocation Interactions.

Guilherme Opinião, Manuel Sardinha, Nuno A. Ribeiro, Luís Reis: Design and development of a bioabsorbable interference screw for fused filament fabrication.

Sarim Waseem, Izzet Erkin Ünsal, Tuncay Yalçinkaya: Phase field modeling of fatigue crack growth at constant and variable amplitude loading.

Book of abstracts & Publications

The Book of abstract was published by ESIS publishing house. The full book can be downloaded using the link: <https://www.esis-ph.eu/index.php/eph/catalog/book/27>

Conference manuscripts (a total of 216) are published in Procedia Structural Integrity, Elsevier.

Four Affiliated ESIS journals are available for publication of a set of selected paper in special issues.

Videos

415 paper presentations and 5 Summer School lectures are available in ESIS YouTube channel:

<https://www.youtube.com/c/EuropeanStructuralIntegritySociety>

7th Summer School on Fracture Mechanics and Structural Integrity

The 7th Summer School on Fracture Mechanics and Structural Integrity was held in Colégio dos Jesuítas do Funchal, Universidade da Madeira, Funchal, on 25-26th June, 2022. Five lectures were delivered:

Course	Lecturer
25th June, 2022	
C1 - Design of Carbon Fibre Composites: How can we make them tougher?	Prof. Constantinos Soutis
Coffee-break	
C5 - Prediction of fracture of polymer composite materials across different length scales	Prof. Pedro Camanho
Lunch	
C3 - Fracture and Fatigue Assessment Procedures of Offshore Structures and Subsea Applications for Oil and Gas Production Systems	Prof. Claudio Ruggieri
Summer School dinner	
26th June, 2022	
C4 - Elastic plastic fracture mechanics HSLA steels – J integral approach and micromechanical modelling (dedicated to J.R.Rice 80th birthday)	Prof. Aleksandar Sedmak
Coffee-break	
C2 - Fatigue and Fracture of Autofrettaged High-Pressure Vessels	Prof. Mordechai Perl

All of them can be seen at ESIS YouTube channel: [ESIS Summer School 2022 \(Madeira, Portugal\) - YouTube](#)

Photos

All ECF23 event were photographed and can be seen at the following addresses:

<https://photos.app.goo.gl/KU64kmVV4AsPNby49>
<https://photos.app.goo.gl/ZTyN51qCaiffn9ZH6>
<https://photos.app.goo.gl/PVi7FtfqWqE68HrF7>
<https://photos.app.goo.gl/8UjWkQMZS8cHurSV9>
<https://photos.app.goo.gl/cqXK1UXvPCyo34Lk8>
<https://photos.app.goo.gl/JLL4b47L6a47Cad58>
<https://photos.app.goo.gl/bU6tRh8aDtJ2AY3K7>

TECHNICAL COMMITTEES

TC2: Micromechanisms

TC2 is planning to have a 3-day TC2 meeting/conference on 18-20 September 2023 (Mon-Wed) in Oxford, UK. To minimise the participation cost, the conference will be held in one of the Oxford colleges. Depending on the number of participants our estimation is that the fee will be between £130 and £170, with provision to support PhD researchers from certain countries. This fee includes only lunch and two coffee breaks each day and covers the rent of the auditorium/lecture theater. Further, an en-suite accommodation in the college is available at £75/night, and an optional dinner at £67.5 including pre-drinks and wine.

TC3: Fatigue of engineering materials and structures

TC3 is now organized as follows: Chairpersons: José António Correia and Sabrina Vantadori
Secretaries: Camilla Ronchei and Shun-Peng Zhu
Treasurer: Daniela Scorza
In 2022, TC3 organized:

- Special Issue of International Journal of Fatigue entitled "ICSI2021" (Guest Editors: Pedro Moreira, Paulo Tavares, José António Correia), with papers selected from those presented at the 4th International Conference on Structural Integrity (ICSI 2021), 30th August to 2nd September, 2021 (online).
- Special Issue of International Journal of Fatigue entitled "Fatigue Crack Paths" (Guest Editors: Filippo Berto, Andrea Carpinteri, Stefano Natali, Sabrina Vantadori, José António Correia) with papers selected from those presented at the 7th International Conference on Crack Paths (CP 2021), 21st to 24th September, 2021 (online).
- Special Issue of Engineering Failure Analysis entitled "Crack Paths" (Guest Editors: Sabrina Vantadori, José António Correia, Francesco Iacoviello), with papers selected from those presented at the 7th International Conference on Crack Paths (CP 2021), 21st to 24th September, 2021 (online).
- A Thematic Symposium on "Crack paths in the fatigue and fracture" - chaired by Sabrina Vantadori (Parma, Italy) and Camilla Ronchei (Cosenza, Italy) - at the International Conference on 2nd Mediterranean Conference on Fracture and Structural Integrity (Med-Fract2), 14th to 16th February 2022, Catania, Italy.

- A Thematic Symposium on "Fracture and Fatigue in presence of cracks or stress concentrators" - chaired by Professor Sabrina Vantadori (Parma, Italy), Professor Camilla Ronchei (Cosenza, Italy), Professor Andrea Carpinteri (Parma, Italy), Professor José A.F.O. Correia (Porto, Portugal) - at the International Conference on European Conference on Fracture (ECF23), June 27th - July 1st, 2022, Funchal, Madeira, Portugal.

- A Thematic Symposium on "Structural Integrity and Life Extension" - chaired by José A.F.O. Correia (Porto, Portugal), Pedro Moreira (Porto, Portugal), Abílio M.P. De Jesus (Porto, Portugal) and Filippo Berto (NTNU, Norway) - at the International Conference on Renewable Energies and Ocean Technologies (REOTech 2022), 12th to 14th September 2022, Porto, Portugal.

In 2023, TC3 will organize:

- A Thematic Symposium on "Experimental and Theoretical Fracture Analysis of Traditional and Innovative Materials" - chaired by Sabrina Vantadori (Parma, Italy) and Luciano Feo (Salerno, Italy) - at the 27th International Conference on Fracture and Structural Integrity (IGF27), 22nd to 24th February, 2023, Rome (Italy) & Web.

- A Thematic Symposium on "Crack Paths in Fatigue and Fracture" - chaired by Sabrina Vantadori, Andrea Carpinteri, Camilla Ronchei and Daniela Scorza (Parma, Italy) - at the 5th International Conference on Structural Integrity (ICSI2023), 29th August to 1st September, 2023, Madeira, Portugal

TC4: Polymers, polymer composites and adhesives

In 2022, ESIS TC4 organized two events:

- 29.03.2022: a virtual meeting as a one-day session, focussing on running activities, with about 40 participants. The meeting was chaired by Bamber Blackman and Andreas Brunner.

- 29-30.09.2022: Les Diablerets, Switzerland. The meeting was chaired by Bamber Blackman and Andreas Brunner.

ESIS TC4 is planning a virtual only spring meeting on April 5, 2023, with a possible half-day extension to April 6, 2023 (the latter mainly for administrative matters, if necessary). The fall meeting will be held in person after the 9th ESIS TC4 Conference on Fracture, September 21 and 22, 2023. Since the conference hotel in Les Diablerets that was planned to host the conference participants is not available anymore due to renovation, the conference (September 17-21) will have to be relocated, the date is to be kept. The new venue will be announced later, currently the conference organizer is negotiating with potential venues. The ESIS TC4 website and the conference website will be updated as soon as a decision has been reached.

TC11: High temperature mechanical testing

The 84th TC 11 meeting is planned for 24th May on site in Edinburgh in conjunction with the ECC2023 conference to be held in Edinburgh, Scotland (see <https://ecc2023.com>). The 84th TC11 meeting can probably be attended also by a web-meeting. The web facility is in preparation.

The next Temperature measurement Working Group Meeting will take place on 06th March 2023 via MSTEams. It is intended to discuss final details of the revision of the Code of Practice for Temperature Measurement including new details of drift of thermocouples type K and type N.

TC13: Education and training

The TC13 in collaboration with H2020-WIDESPREAD-2018 Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM), project no. 857124 organized the 2nd Winter School on Trends on Additive Manufacturing for Engineering Applications, from 6 to 10 February 2022 at Brno University of Technology, Czech Republic.

The Winter School Program consists in 13 lectures, 2 practical sessions, 2 discussion sessions and a final exam. The Winter School was attended by 159 participants, from 28 countries in presence and online. Most of the participants (73%) were PhD and Master students, but also teaching staff, researchers and postdoctoral researches were attendees.

The TC13 in collaboration with H2020-WIDESPREAD-2018 Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM), project no. 857124 will organize the 3rd Winter School on Trends on Additive Manufacturing for Engineering Applications, from 5 to 9 February 2023 at the Faculty of Mechanical Engineering, University of Belgrade, Serbia. More information at:

https://www.siramm.unipr.it/3rd_Winter_School.htm

TC14: Integrity of biomedical and biological materials

The 4th Committee Meeting of ESIS TC14 "Integrity of Biomedical and Biological Materials" was organised on 28 June 2022 in Funchal, Portugal within the framework of ECF23. Among attendees were representatives of UK, Israel, Germany, Serbia and Croatia.

It was decided to continue the series *International Conference on Stents: Materials, Mechanics and Manufacturing* that will be organised every two-three years. The topic would be extended, with a new name *International Conference on Medical Devices: Materials, Mechanics and Manufacturing*, with the next conference to be held in Summer 2023 (see below).

ESIS TC14 organised Thematic Symposium "Integrity of Biomedical and Biological Materials" within the framework of ECF23, *European Conference on Fracture 2022* in Funchal, Madeira, Portugal, 27 June – 1 July 2022.

Mini Symposium "Mechanics of Biomedical Materials and Devices" was organised by ESIS TC14 within the framework of the 10th International Conference on Modern Practice in Stress and Vibration Analysis (MPSVA 2022) at St. Anne's College, Oxford, UK, 12-14 July 2022.

(see <http://mpsva2022.iopconfs.org>).

Symposium "Mechanics of Biomedical Materials and Devices" will be organised by ESIS TC14 within the framework of the 29th International Conference on Computational & Experimental Engineering and Sciences (ICCES2023) in Shenzhen, China, 2-5 May 2023. The deadline for abstracts is 31 January 2023. <http://www.iccesconf.org/>

The 2nd International Conference on Medical Devices: Materials, Mechanics and Manufacturing ICMD3M 2023 will be organised by TC14 in Corfu, Greece on 26-28 June 2023 in Corfu Holiday Palace. The first conference was organised in London, UK in 2019 and was focused on stents. The deadline for the abstracts is 15 February 2023.

Peer-reviewed short papers presented at the Conference will be published in a Special Issue of the Open Access journal *Procedia Structural Integrity* (Elsevier). A selection of papers will be published in a Special Issue of *Medical Engineering & Physics* (Elsevier) after the event. Several Special Sessions will be organized.

The aim of this Conference is to bring together specialists in biomedical engineering, biomechanics, materials science, experimental mechanics, modelling and various aspects of processing and manufacturing as well as medical practitioners to discuss advances in medical devices (stents, implants, scaffolds, prostheses, pacemakers, catheters, endoscopes, sensors, drills, etc.)

The topics of the Conference include, but are not limited to, the following:

- Metallic and polymeric materials for medical devices;
- Mechanical properties of medical devices;
- Development of biodegradable medical devices;
- Modelling and simulations of deformation of medical devices;
- Design of medical devices;
- Manufacturing of medical devices;
- 3D printing for biomedical applications;
- Failure and fracture of medical devices;
- In-vitro and in-vivo studies;
- Biocompatibility of medical devices;
- Interaction of medical devices with tissues and organs;
- Mechanics of biological and biomedical materials;
- Fluid-solid interaction;
- Biological and clinical issues related to medical devices;
- Medical-imaging-based assessment.

More details on the conference website <https://www.lboro.ac.uk/research/icmd3m-2023/>

Conference Co-Chairs:
Professor Vadim V. Silberschmidt
ESIS TC 14 Chair
Head, Mechanics of Advanced Materials Research Group, Loughborough University, UK
Professor Sotiris Korossis
Chair of Biomedical Engineering & Biohybrid Organs, Cardiopulmonary Regenerative Engineering (CARE) Group, Centre for Biological Engineering Loughborough University, UK

TC15: Structural integrity of additively manufactured components

The European Conference on the Structural Integrity of Additively Manufactured Materials, ESIAM, was founded in 2017 and first held in Trondheim, Norway 2019.

The conference has been organized under the umbrella of ESIS TC15. Due to the pandemic a virtual conference has been organized.

ESIAM21 constituted the second conference in the ESIAM series, where we have seen several advances in fatigue design and lifetime prediction for AM metals, both on the test geometry as well as on the component level. Despite the online nature of the ESIAM21 conference, there were more than 150 participants from 25 countries represented.

This year in collaboration with TC18 a new event (ESIAM23) will be organized in Porto from 4th to 6th of September. You can find all the information and deadlines at the conference website: www.esiam.site

TC15, in collaboration with H2020-WIDESPREAD-2018 Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM), published during 2022 the VSI Fracture behavior of additively manufactured materials and structures in Engineering Fracture Mechanics journal, with selected papers from 1st Virtual European Conference on Fracture, organized by ESIS between June 29 – July 1, 2020.

The TC15 in cooperation with H2020-WIDESPREAD-2018 Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM), and Romanian Association of Fracture Mechanics will organize the International Conference on Structural Integrity and Reliability of Advanced Materials obtained through Additive Manufacturing from 8 to 11 March 2023 at the Central Library of University Politehnica Timisoara, Romania. The conference proceedings will be published on Procedia Structural Integrity (Elsevier) and selected papers in a Special Issue of the Theoretical and Applied Fracture Mechanics journal (Elsevier, IF 4.374). More information at:

https://www.siramm.unipr.it/Conference_SIRAMM23.htm

TC16: Finite fracture mechanics

The TC16 organized a minisymposium at the ECF23 conference in Madeira in June-July 2022 with three sessions and 16 presentations on various topics of finite fracture mechanics.

TC16 resumes its annual meetings after the Covid pandemic ban. A joint Workshop of NewFrac & TC16 of ESIS focused on Finite Fracture Mechanics and Phase Field will take place at Politecnico di Torino, Italy between 17-20, Jan, 2023. This event is organized by Pietro Conetti, Alberto Sapora and Mauro Corrado.

A session on FFM is organized at the 15th International Conference on Fracture, Atlanta, GA which will take place in June 2023: Finite Fracture Mechanics: Theoretical Aspects, Numerical Procedures & Experimental Applications (organized by: Vladislav Mantič, Pietro Cornetti, Dominique Leguillon and Pedro Camanho).

TC17: Non-destructive evaluation

In ECF23 a Thematic symposium on „NDE methods and techniques serving structural integrity assessment” was organized. Altogether 11 presentations were delivered in two sessions.

TC18: Structural integrity of welded joints

TC18 is working in the field of structural integrity of welded structures. Recent advances in manufacturing processes have allowed to improve the fracture and fatigue strength of welded connections but still a lot can be done in this research field which has a high impact on large civil structures, mechanical components, and a wide products variety at different scale levels. In this scenario, TC18 organized in 2022 a symposium on the following topics:

- Fracture of Welded Joints
- Fatigue of Welded Joints
- Metallurgy of Welded Joints
- Corrosion of Welded Joints
- Design criteria of Welded Joints
- Modelling and simulation of Welded Joints
- Advanced joining techniques
- Welding process parameters optimization
- Post welding heat treatment
- Residual stress assessment

The symposium was held in Funchal, Madeira (Portugal) during the ECF23, European Conference on Fracture 2022, June 27 – July 1. Numerous participants, coming from different parts of the Globe, showed an impressive interest, giving us the chance to re-propose it in an even more interesting program of topics in 2023.



In collaboration with TC15, ESIAM 23 will be organized in Porto from 4th - 6th of September 2023 (www.esiam.site).

In addition, special and dedicated online symposia will be carried out on 2023 and alert in the ESIS website. Different topics will be touched with the aim to provide an update picture of the state of the art in the field.

NATIONAL GROUPS

Hungary

The University of Debrecen, largest university in Hungary, in collaboration with the Hungarian Association for NDT and ESIS Hungarian Chapter, completed for the second time a two-semester postgraduate course on NDT Integrity Engineering. The course is pioneer in Hungary and unexampled at international level as well. Lectures were delivered by leading university professors and recognized engineers from the industry, many of them members of ESIS Hungarian Chapter.

The students attended were practitioner engineers from industry, academic institutions and NDT service providers. In completing the laboratory exercises, firms interested in both NDT technology development and service provision took part.

The course basic concept was to emphasize the unity of engineering mentality (safety- reliability – risk) and its economic consequence; to give and overall view on operability of engineering components / systems; and to recognize the importance of degradation effects. The course syllabus can be seen in the table.

Subject groups	Subject
Numerical methods, applied mathematics	Statistical methods
	Problem solving with machine learning
	Basics of Finite Element Method
	FEM applications in structural integrity analysis
Degradation effects, structural integrity assessment	Engineering methods of operability
	Fracture mechanics – Principles and material properties
	Operating conditions – Material degradations I.
	Operating conditions – Material degradations II.
NDT/ NDE methods, techniques and application areas	Safety, reliability, risk
	Modern condition monitoring
	Industry 4.0 and NDE
	Reliability of NDE
	Modelling and simulation of NDE
	NDE methods and applications I.
NDE methods and applications II.	
	Thesis

Italy

In 2022 IGF, the Italian Group of Fracture, organized in cooperation with Algerian Group of Fracture Mechanics and Energy (AGFME), Greek Society of Experimental Mechanics of Materials (GSEMM), Italian Group of Fracture (IGF) and Sociedad Espanola de Integridad Estructural - Grupo Espanol de Fractura (SEIE-GEF) the **2nd Mediterranean Conference on Fracture and Structural Integrity, MedFract2** (February 14-16, 2022, Catania, Italy, & Web). With more than 130 participants from 24 different countries, the event was really successful! Proceedings were published in the issue 41 of *Procedia Structural Integrity*.



In addition, in 2022, IGF published 4 issues of *Frattura ed Integrità Strutturale (Fracture and Structural Integrity)* with 152 papers from 36 different countries. In 2022, Scimago Journal & Country Rank certified that *Frattura ed Integrità Strutturale* is Q2 in three different categories:

- Civil and Structural Engineering;
- Mechanical Engineering;
- Mechanics of Materials.

We wish to remind that *Frattura ed Integrità Strutturale* encompasses the broad topic of structural integrity, which is based on the mechanics of fatigue and fracture and is concerned with the reliability and effectiveness of structural components. The aim of the Journal is to promote works and researches on fracture phenomena, as well as the development of new materials and new standards for structural integrity assessment. The Journal is interdisciplinary and accepts contributions from engineers, metallurgists, materials scientists, physicists, chemists, and mathematicians. The Journal is completely free of charge, both for Readers and for Authors (no APC).

In 2023, the Italian Group of Fracture will organize two events:

- IGF27, 27th International Conference on Fracture and Structural Integrity February 22-24, 2023, Rome (Italy) & Web; Registration & Abstract submission deadline: 25.01.2023 <https://www.igf27.eu/>.
- ESIAM23: The third European Conference on the Structural Integrity of Additively Manufactured Materials - Porto, Portugal, September 4-6, 2023; <https://www.esiam.site/>; Abstract submission deadline: 31.01.2023



Portugal



Activities carried out in 2022

- General assembly of SPFIE, with the creation of the executive committee, 31th March, Coimbra.
- Events support:
- 5th Iberian Conference on Structural Integrity, IbCSI 2022 – Coimbra, Portugal, 30th March – 1st April, 2022, Profs. Luis Borrego and José Ferreira
 - ECF23, European Conference on Fracture 2022, June 27 – July 1, 2022. Funchal, Madeira, Portugal, Profs. Luis Reis and Pedro Moreira.

Proceedings are published on "Procedia Structural Integrity", an open-access Elsevier publication focusing entirely on publishing ESIS conference proceedings.

Four Special Issues with the support of the Journals: *Theoretical and Applied Fracture Mechanics*; *Engineering Fracture Mechanics*; *Engineering Failure Analysis* and *International Journal of Fatigue* are being prepared.

- A ECF summer school was organized in Funchal, 25th-26th June, 2022, prior to the ECF23 conference, Summer School – ECF23, European Conference on Fracture 2022. Profs. Luis Reis and Pedro Moreira.



Activities foreseen for 2023

- SPFIE Website publication www.spfie.pt
- Symposium – New developments concerning the mechanical behavior of materials and structures - Porto, Portugal, 20th January, 2023. The symposium includes an award delivery to the best PhD thesis in the field of Engineering in Structural Integrity in Portugal.
- 5th International Conference on Structural Integrity – ICSI – Madeira, Portugal, 29th August – 1st September, 2023 - <http://www.icsi.pt/>, Profs. Pedro Moreira and Paulo Tavares
- The third European Conference on the Structural Integrity of Additively Manufactured Materials–Porto, Portugal, September 4th-6th, 2023 - ESIAM23, Prof.(s) Luis Reis and Abílio Jesus
- International Conference on Renewable Energies and Ocean Technologies (REOTech 2022 REOTech 2023) is organised by SIREL group (FEUP, Portugal), SPFIE (Portuguese Structural Integrity Society, Portugal), IDMEC (IST, Portugal), SOBENA (UFRJ, Brazil), UESTC (China), and MODENRLANDS, which will take place in the Sheraton Hotel – Porto, in the City of Porto, located at seaside in the northwest region of Portugal, in 12-13 September 2022 10-11 July 2023.

Romania

The Romanian Association of Fracture Mechanics will be co-organization of the conference Structural Integrity and Reliability of Advanced Materials obtained through Additive Manufacturing (8 to 11 March 2023 at the Central Library of University Politehnica Timisoara, Romania).

Russia

1. Seminar "Current state and problematic issues of shock laser hardening technology", 1-2.11.2022, with participation Vellore Institute of Technology, India; PFRC Ural Branch of the Russian Academy of Sciences; MAI; FAU "CIAM named after P.I. Baranov" and industrial partners.

2. Special issue of the journal "Fracture and Structural Integrity" dedicated to "Russian mechanics contributions for Structural Integrity" (11 papers). The issue is open for publications in 2023 year.
3. XVI International Conference in Memory of Academician Eduard Gorkunov Mechanics, resource and diagnostics of materials and structures. 16-22.5.22
4. Special issue of Procedia Structural Integrity (vol 40, 2022) devoted to XVI International Conference Mechanics, resource and diagnostics of materials and structures.

Spain

In 2022, the Spanish Society for Structural Integrity (SEIE) – Spanish Fracture Group (GEF) organized the 5th Iberian Conference on Structural Integrity – XXXVIII Congreso del Grupo Español de Fractura – GEF2022, held in Coimbra from March 30th to April 1st 2022.

Spanish Society for Structural Integrity (SEIE) – Spanish Fracture Group (GEF) and Portuguese Society for Structural Integrity (SPFIE) hold periodic scientific congresses in the field of fracture, fatigue and structural integrity, the SEIE-GEF annually and SPFIE biannually. The idea of holding Spanish-Portuguese congresses materialized for the first time in Braga in 1987, which was followed by the congresses in Mérida (1993), Luso (1996) and Porto (2010). In 2022, the fifth Spanish-Portuguese meeting, called the 5th Iberian Conference on Structural Integrity, was held at the Vila Galé hotel in Coimbra (Portugal) on March 30th and 31st and April 1st. In this edition, the organization was carried out by Luís Filipe Borrego (Coimbra Polytechnic) and José Martins Ferreira (Coimbra University).

There were 130 attendees at the congress, 80 papers presented in oral communication and 9 papers in poster-type communication. All the works presented in this congress have been published in the Revista Española de Mecánica de la Fractura, which volumes can be downloaded from <https://gef.es/publicaciones>. March 22-24, 2023. Annual meeting of the Fracture Spanish Group/Structural Integrity Spanish Society, Gijón, Asturias, Spain. <https://gef2023.es>

Various contests have traditionally been held at GEF scientific meetings: Best PhD thesis, Best paper presented by a non-doctoral researcher, Best poster communication, Best scientific photography. In 2022, during the 5th Iberian conference on structural integrity, the Spanish Group of Fracture conceded the awards in the LINK.



Switzerland

The ESIS Swiss National Group had organized one day meeting on 21.9.2022 together with the Swiss Association for Materials Science and Technology (<https://svmt.ch/fachgruppe-strukturintegritaet/>) The ESIS Swiss National group will hold one day meeting again in 2023 together with the Structural Integrity Group of SVMT (the Swiss Association for Materials Science and Technology). Date and venue will be announced later.

UK

17th International Conference on Engineering Structural Integrity Assessment and 2023 International Symposium on Structural Integrity (ESIA17-ISSI 2023).

Ukraine

The last year was a difficult time for the Ukrainian scientific community and, in particular, for the activities of the Ukrainian national group due to the war against Ukraine. Nevertheless, we managed to contribute to some important scientific events. Namely, the Ukrainian delegation of three researchers (Prof. Olha Zvirko, D.Sci. Halyna Krechkovska, and Dr. Iryna Didych) attended the 23rd European Conference on Fracture (ECF 23) on June 27 – July 1, 2022, Madeira, Portugal, and Prof. Olha Zvirko represented Ukraine at the ESIS Council meeting. 17th International Conference on Engineering Structural Integrity Assessment and 2023 International Symposium on Structural Integrity (ESIA17 – ISSI2023) will be organized.



*Ukrainian scientists at the ECF 23:
Iryna Didych, Halyna Krechkovska, Olha Zvirko.*

We also organized the International Scientific and Technical Conference "Strength and Durability of Modern Materials and Structures" (SDMMS), dedicated to the 70th Anniversary of Prof. Petro Yasniy, who was co-chairman of TC13 "Education and Training" since 2015 and passed away one year ago.

The conference was held at Ternopil Ivan Pulu National Technical University (TNTU) and online on November 10–11, 2022. During the Opening session, distinguished scientists (Rector TNTU Dr. Mykola Mytnyk and its Vice-Rector Prof. Pavlo Maruschak, Prof. Yuri Lapusta from Clermont Auvergne University, France) talked about the scientific contribution of Prof. Yasniy and his international activity. Prof. Aleksandar Sedmak (University of Belgrade, Serbia), ESIS President, at the beginning of his lecture, also mentioned that Prof. Petro Yasniy contributed a lot to ESIS.

Advantages of being an ESIS member

- ◆ participation in TC activities and access to TC documents;
- ◆ full on-line access to ESIS procedures;
- ◆ full on-line access to former EGF-ESIS books;
- ◆ support for ESIS activity.

**how to renew? see [page 16](#)
or
www.structuralintegrity.eu**

ESIS Website

www.structuralintegrity.eu

- **become a member of ESIS and take advantage of all the "Members Only" resources on this Web site**
- **register automatically as a member and pay the fee by PayPal system**
- **obtain your username and password for accessing the private area for downloading EGF-ESIS books and Procedures**
- **exchange new ideas, advancements and documents**



Young scientist competition: Best Paper Lisa Claeys, Best Runner-up Examilioti Theano, Best presentation Francesca Berti



TCs symposia organizer awards: Gold Medal: Sabrina Vantadori, TC3, Silver Medal: Filippo Berto, TC15, Bronze Medal: Milos Djukic & Motomichi Koyama, TC10b,

CALENDAR OF TC MEETINGS & ACTIVITIES

TC8 meeting	6-7 th February 2023	Belgrade, Serbia	
TC4 meeting and conf.	2-5 th May 2023	Shenzhen, China	http://www.iccesconf.org
TC4 – 8 th Int. Conf.	17-21 st Sept 2023	Les Diablerets, Switzerland	
TC16 meeting	17-20 th January 2023	Torino, Italy	
TC15 - ESIAM23	4-6 th September 2024	Porto, Portugal	

CALENDAR OF CONFERENCES & WORKSHOPS

IGF27, 27 th Int. Conf.	22-24 th February 2023	Rome, Italy	https://www.igf27.eu/
2 nd IRAS	2 nd -5 th April 2023	Belgrade, Serbia	https://web.fe.up.pt/~iras/
ICF15	11-16 th June 2023	Atlanta, USA	https://icf15.gatech.edu/
ICSI	29 th Aug – 1 st Sept 2023	Madeira, Portugal	http://www.icsi.pt/
21 st Int. Conf. on FDM	12-14 th Sept. 2023	London, UK	http://fdm.engineeringconferences.net/new/
21 st Int. ASTM/ESIS Symp	8-10 th Nov. 2023	Washington, DC, USA	https://na.eventscloud.com/website/44342/21st-international-astm-esis-symp/
Fatigue Design	29-30 th Nov. 2023	Senlis, France	https://fatiguedesign.org/
Fatigue 2024	19-21 June 2024	Cambridge, UK	http://www.fatigue2024.com
ECF24 & Summer S.	24-30 th August 2024	Zagreb, Croatia	
8 th Int. Conf. on Crack paths	24-26 th Sept. 2024		

ESIS Procedures and Documents (available free for ESIS Members at www.structuralintegrity.eu)

Two kinds of documents are produced by ESIS Technical Committees with the following designatory system: ESIS P2-92 or ESIS P4-92D, where:

1. P means "Procedure", and 2 and 4 are the current numbers, while 92 is the year of issue.
2. D following the year (eg: 92D) means "draft", ie: not yet approved, while
3. D prior to the year (eg: D1-92) means "Document" other than test methods.

<p>P1-92 ESIS RECOMMENDATIONS FOR DETERMINING THE FRACTURE RESISTANCE OF DUCTILE MATERIALS. Responsible body: TC1 Subcommittee on Fracture Mechanics Testing Standards.</p>
<p>P2-92 ESIS PROCEDURE FOR DETERMINING THE FRACTURE BEHAVIOUR OF MATERIALS. Responsible body: TC1 Subcommittee on Fracture Mechanics Testing Standards.</p>
<p>P3-03D DRAFT UNIFIED PROCEDURE FOR DETERMINING THE FRACTURE BEHAVIOUR OF MATERIAL. Responsible body: TC1 Subcommittee on Fracture Mechanics Testing Standards (UNDER PREPARATION NOT AVAILABLE).</p>
<p>P4-92D ESIS RECOMMENDATIONS FOR STRESS CORROSION TESTING USING PRE-CRACKED SPECIMENS. Responsible body: TC10 Committee on Environmental-Assisted Cracking.</p>
<p>P5-00/VAMAS PROCEDURE FOR DETERMINING THE OF FRACTURE TOUGHNESS OF CERAMICS USING THE SEVNB METHOD . Responsible body: TC6 Committee on Ceramics.</p>
<p>P6-98 ESIS PROCEDURE TO MEASURE AND CALCULATE MATERIAL PARAMETERS FOR THE LOCAL APPROACH TO FRACTURE USING NOTCHED TENSILE SPECIMENS. Responsible body: TC8 Committee on Numerical Methods.</p>
<p>P7-00 ESIS PROCEDURE FOR DYNAMIC TENSILE TESTS Responsible body: TC5 Subcommittee on Dynamic Testing at Intermediate Strain rates.</p>
<p>P8-99D ESIS DRAFT CODE OF PRACTICE FOR THE DETERMINATION AND INTERPRETATION OF CYCLIC STRESS-STRAIN DATA. Responsible body: TC11 Committee on High Temperature Mechanical Testing.</p>
<p>P9-02D GUIDANCE ON LOCAL APPROACH OF RUPTURE OF METALLIC MATERIALS. (UNDER PREPARATION NOT AVAILABLE).</p>
<p>P10-02 A CODE OF PRACTICE FOR CONDUCTING NOTCHED BAR CREEP RUPTURE TESTS AND INTERPRETING THE DATA. Responsible body: TC11 High Temperature Mechanical Testing Committee.</p>
<p>P11-02 TECHNICAL RECOMMANDATIONS FOR THE EXTREME VALUE ANALYSIS OF DATA ON LARGE NONMETALLIC INCLUSIONS Responsible body: TC20 Committee on Inclusions.</p>
<p>D1-92 FRACTURE CONTROL GUIDELINES FOR STRESS CORROSION CRACKING OF HIGH STRENGTH ALLOYS. Responsible body: TC10 Committee on Environmental Assisted Cracking.</p>
<p>D2-99 FRACTURE TOUGHNESS OF CERAMICS USING THE SEVNB METHOD; ROUND ROBIN, TEST PROGRAMME. The ESIS TC6 and VAMAS TWA3 developed a test method and conducted a round robin for its validation. D2-99 presents a detailed documentation of this activity. The final form of the test method has appeared as P5-00. Responsible body: TC6 Committee on Ceramics.</p>



European Structural Integrity Society

2023 Membership Application Form

1st JANUARY to 31st DECEMBER 2023

All members will be registered as Individual Members and will receive the ESIS Newsletter, at least once a year, by electronic delivery to the provided e-mail address.

Membership Fees should be paid either by bank transfer or by Credit Card or by PayPal to the value of € 30 (Euros).

Please put a cross (X) in the appropriate box(es) :

Register me as an ESIS member for the year 2021 and send the ESIS Newsletters to the address stated below (in BLOCK CAPITALS please).

Payment details.

Since the membership fee is exceedingly cheap, PLEASE REGARD THIS FORM AS AN OFFICIAL INVOICE, noting that on receipt of your payment you will receive an official receipt plus your ESIS 2019 membership number.

Enclosed is a PayPal payment receipt/details

OR

Enclosed is a copy of bank transfer for € 30 (Euros The bank is: Uncredit banca

The name of the beneficiary is: **ESIS (European Structural Integrity Society)**

the coordinates are:

IBAN: IT22 N 02008 01160 000020016279

BIC SWIFT Code: UNCRITM1AG0

OR

Please charge to my (**delete as appropriate**) EUROCARD / MASTER CARD / VISA CARD an amount of € 30 (Euros). My card number is:

Exp
Date:

Please print clearly

Surname: _____ Name _____ Title(s) _____

Affiliation: _____

Address: _____

e-mail: _____ Tel No: _____

Fax No: _____

Signature:

Date:

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