Design and assessment with strut-and-tie models and stress fields:

From simple calculations to detailed numerical analysis

fib WP 2.2.4 (Strut-and-tie modelling) Webinar Workshop 1st and 4th April 2022







Aims and scope of the Webinar

Strut-and-tie and stress fields are instrumental tools for structural designers. They allow for an intuitive understanding of the structural response and allow the engineer to adopt suitable design decisions. A complete review of the method, from its theoretical bases and classical implementations to state-of-the-art approaches, has been recently published in Bulletin 100 of *fib*, drafted by its WP 2.2.4.

This Webinar, organized by WP 2.2.4, is aimed at being an opportunity to share knowledge on strut-and-tie and stress fields with professionals, academics and students. The webinar is organized in two afternoons. The first is devoted to reviewing classical and advanced concepts of the methods, with sufficient time for discussions and questions. The second will consist on interactive sessions where academic and real practical cases are solved by experts of the WP 2.2.4 together with the audience. This latter task will be performed with hand-based approaches and also using a specific software for stress field design (the software will be free to download and use for all attendees). *fib* WP 2.2.4 (Strut-and-tie modelling) Webinar Workshop 1st and 4th April 2022

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Programme

Date: 1.4.2022	
13.05-13:15	Introduction to Webinar
13.15-13:30	Introduction to STM, SF and limit analysis
13:30-14:15	The LoA within STM and SF design
14:15-14:30	Break
14:30-15:05	Hand-made STM and stress fields
15:05-15:35	The Stringer-Panel Method
15:35-15:45	Break
15:45-16:30	Compatibility-based stress fields (FEM)
16:30-17:00	Special STM and SF models
17:00-17:30	Discussion
Date: 4.4.2022	
13:05-14:00	Example 1
14:05-14:45	Example 2
14:45-15:00	Break
15:00-15:45	Example 3
15:45-16:30	Example 4
16:30-16:45	Break
16:45-17:30	Outlook on computer-aided design
17:30-17:45	Conclusion

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Note on the examples of 4.4:

The examples to be solved on 4.4 will consist of one academic example, one research case and two practical cases (real design situations).

For the two practical cases, the audience is invited to send proposal of real projects to be solved during the Webinar. There is no necessity to give the identification data of the original project if this were not possible Design and assessment with strut-and-tie models and stress fields:

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Fees:

- *fib* member: 100€
- Non-*fib* member: 150€
- Students: 20€

For all attendees, a copy of the design software used in the course will be provided

For all attendees, except students, a copy of fib Bulletin 100 will be offered

All registered participants that attend the course will receive a diploma of attendance

Registration:

https://www.fib-international.org/events-registration/fib-wp 2-2-4-workshop-strut-and-tie-modelling-detail.html

Contact information:

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