EUCEET Association

NEWSLETTER 1/2013

In this issue

Foreword

In the workplan for 2013 of the EUCEET Association, approved at the General Assembly which took place on 9th November 2012 in Pisa, was included the preparation of 4 newsletters, under the responsibility of the Secretariat and based primarily on contribution from members. As a result, contributions were asked from members of the Association.

The Secretariat of The EUCEET Association (European Civil Engineering Education and Training Association) is pleased to publish now the first *EUCEET Association NEWSLETTER*, an information bulletin.

By means of this bulletin we would like to offer you information about the activities of the Association, of the Working Groups, as well as information from members, from partners, from European Union, from Europe, from the rest of the world and a calendar with the main events related to civil engineering education.

We hope that the Newsletter will be used by your university/institution to convey to other members information of interest.

The Secretariat of EUCEET Association

FROM THE EUCEET ASSOCIATION

The announcement of the 2nd EUCEET Association Conference

The 2nd EUCEET Association Conference, organized and hosted by the National Research University Moscow State University of Civil Engineering (MGSU), will take place on 14th and 15th October 2013 in the Academic Hall of MGSU.

The theme of the Conference is the one decided at the 5th General Assembly of the EUCEET Association held on 9th November 2013, at the Pisa University: "***Civil engineering education: are we meeting the needs of the industry and society?"***

The topics are:

the role of university sector in providing civil engineers for society as a whole

- *the formation of conception and practically oriented civil engineers in Europe*
- *the education/training of civil engineers for social responsibility*
- *educating future Engineering Leaders*
- *developing the area of student-led initiatives and projects*
- *understanding what industry needs*
- *debate on technical and non-technical content of degree programmes*
- *role of civil engineers in tackling the challenges faced by the society*
- *professional practice and ethics.*

From our Working Groups

WORKING GROUP "BEST PRACTICE IN TEACHING, LEARNING AND ASSESSMENT"

Working teams *"Observatories for Education-related activities within Civil Engineering disciplines"*, by Assoc. Prof. Marina PANTAZIDOU, member of the Administrative Council of EUCEET Association

The task of these working teams, which were established after the GA in Pisa, is to keep track of education-related activities within each civil engineering disciplines. As a first attempt, the following disciplines are considered (discipline names can be modified based on group member proposals): Construction management, Environmental, Geotechnical, Hydraulics, Structures and Transportation. The objectives of keeping track of education-related activities within a discipline are to create (1) a repository of sources and (2) a repository of educational material. Creating these two repositories involves activities such as those listed below.

(1) Create a repository of education sources organized by discipline
- Identify literature sources and become familiar with contents
- Identify/keep track of international/regional conferences within a discipline, especially those with open contents
- Identify/keep track of education conferences with discipline-specific sessions/papers, e.g. the annual conferences of the American Society of Engineering Education (ASEE)
- Search for/keep track of papers on educational topics within the discipline in civil engineering and education journals, e.g., ASCE, Journal of Professional Issues in Engineering Education and Practice, International Journal of Engineering Education, European Journal of Engineering Education.
- Keep track of recent and current educational initiatives of technical committees on education within the disciplines

(2) Create a repository of peer-reviewed/peer-used educational material organized by discipline
- Report on educational material developed by others adopted in own teaching
- Selectively report on peer-reviewed material identified in (1)

In other words, the working groups do not aim to produce self reports for activities undertaken by the members of EUCEET Association, but rather to highlight activities undertaken by others, which have the potential to be of general applicability and usefulness for the discipline.

The work plan for Working Groups, as revised in February 2013, is as follows.

Phase 1 Action: Identify sources
(Dec 2012-April 2013)
Create a repository of sources organized by discipline

1. Make a list of all the International/European/American Associations relevant to the discipline. If there exist other active national societies who provide full information in English, we add those as well. This **association list (A list)** will include full name, acronym – if relevant – and website.

[Example for Geotechnical Engineering: International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE: http://www.issmge.org/en/), the Geo-Institute of the American Society of Civil Engineers (ASCE's Geo-Institute: http://www.asce.org/geo/), United States Universities Council on Geotechnical Engineering (USUCGE: http://www.usucger.org/), …]

2. Check whether there is a standing committee, working group or task force on university education for this discipline. These are our **association sources (A sources)**. Other potential sources may include EU-funded projects on education topics within

the discipline. Add to the list a) the name of committee, working group, EU-funded project etc., b) the name and e-mail of the chairperson of the committee and c) website (if available).

[Example for Geotechnical Engineering: ISSMGE has a committee on Geo-Engineering Education without a website, ASCE's Geo-Institute has only a committee on continuing education: we will still include the Geo-Institute in the A list, because at some point it may launch some initiative related to tertiary education.]

3. Make a list (**L list**) of all the sources of literature (**L sources**) on the education of the discipline. These will be mostly scientific journals and conferences. Some of these sources will be relevant only to a specific discipline. In addition, we will also include sources that are common to the field of Civil Engineering, such as the ASCE Journal of Professional Issues in Engineering Education and Practice, the European Journal of Engineering Education (EJEE), the International Journal of Engineering Education (IJEE) and the annual conferences of the American Society of Engineering Education (ASEE), the proceedings of which are freely available on the internet and searchable with keywords (http://www.asee.org/search/proceedings). For the journals, the list will include titles and websites, for the conferences name, full reference of the proceedings and website (if available).

Phase 2 Action: Review source material
(pilot phase: April 2013-June 2013)
Create a repository of peer-reviewed/peer-used educational material organized by discipline

1. Having an idea of the sources, members volunteer to become familiar with the activities of the sources and any educational material available through the sources (e.g. a member may volunteer to search the contents of the ASEE conferences to find all the papers on topics within the discipline), either with information provided on the internet, or through e-mail contacts with chairpersons (keep track of contact attempts).

2. Selectively review available material (keep track of what is reviewed: e.g. "I read these 5-15 papers published in the ASEE proceedings and I found 1 useful) and prepare brief reports (1-2 paragraphs) on how this activity/material can be useful to an instructor within the discipline. The stronger reviews are those by reviewers who will adopt the reviewed material themselves – these are the reviews we are mostly interested in (focus of Phase 3).

Phase 3 Action: Identify areas of focus
(July-September 2013)

Evaluate the results of Phases 1 and 2 and consider continuation of the work in a targeted manner.

WORKING GROUP "CURRICULUM DEVELOPMENT"

Prof. Diego Lo Presti was elected to chair the Working Group "*Curriculum Development*" at the General Assembly which took place in Barcelona on 3rd December 2010. Since Prof. Diego Lo Presti has duties as President of the Association, he invited Prof. Linas Juknevicius to be the new Chairman of the Working Group on Curriculum Development.

Prof. Linas Juknevicius, who showed interest in the activities of the EUCEET Association, clearly demonstrated by his active participation at the General Assemblies, has a rich experience as Vice-Dean of the Faculty of Civil Engineering of the Vilnius Gediminas Technical University. He accepted to be the new chair of the Working Group "*Curriculum Development*".

FROM MEMBERS

Technical University of Civil Engineering Bucharest

Double Diploma, TUCEB-ENPC

Prof. Tudor Bugnariu (Head of the Department of International Relations at TUCEB) on the Double Diploma agreement between Technical University of Civil Engineering Bucharest and Ecole Nationale des Ponts ParisTech:

The Double Diploma Agreement between École des Ponts – Paris Tech (ENPC) and the Technical University of Civil Engineering Bucharest (TUCEB) lasts from 2001. Initially, the agreement was dedicated to students enrolled in the specialization of civil engineering, both universities having long duration programmes (corresponding to the continental system of 5 years). Up to 5 graduates of the first 3 years of the TUCEB, carefully selected according to the professional results and well knowing the French language, had the opportunity to receive simultaneously both diplomas, as graduates of ENPC (Ingénieur de l'Ecole Nationale des Ponts et Chaussées) and TUCEB (Diplomat Engineer) after spending 2 (or 3) years abroad. The Romanian students, enrolled directly in the 2nd year at ENPC (which is equivalent to the 4th year in the continental system), had the obligation to fulfill at ENPC all requirements concerning the scientific, technique and humanities modules of the 2nd and the 3rd year, to carry out a short or long duration practical training and to defense the Diploma Project, in first instance at ENPC. The study programme ended with the students' returning in TUCEB and the presentation of the same Diploma Project in front of a commission made of local professors and a representative of ENPC. After accomplishing these requirements, both universities issued the Graduation Diplomas.

In 2005, when Romania adhered to the Bologna Declaration, the TUCEB changed its educational programme to the three cycles system (a 4 year License programme, followed by 2 years of Master and 3 years of PhD), while the educational programme in ENPC rested unchanged. The unbalanced first cycle in TUCEB imposed a modification of the Double Diploma agreement, thus the eligibility requirements for students of the TUCEB were modified. The candidate should now be a graduate of the first cycle (License) and should also be enrolled as student in one of the Master programmes provided by the TUCEB in a civil engineering field.

From the point of view of the student's obligations at ENPC, no changes occur. Hence, the TUCEB Master student, once enrolled in the 2nd year at ENPC, has to graduate the last two years, as well as the period of practical training, and finally to prepare and to defend the Diploma Project. During the first year, the DD students benefit on the Erasmus mobility scholarship, as well as the regular scholarship provided by TUCEB for worthwhile students.

Concerning the practical training, it can be a short term one, 2 months during the summer between the 2nd and the 3rd year, or a long term one, lasting an entire year, according to the student's choice. The practical training is organized in construction companies or design offices agreed and recommended by ENPC.

According to the bilateral DD agreement, the TUCEB is recognizing the ECTS, marks and the total workload of the student abroad, making a global equivalence with the first year of the Master programme. Thus, after fulfilling all obligations at ENPC, the Master student should return to the TUCEB, attend and graduate the courses and seminars period during the 3rd semester. According to the TUCEB programme, the 4th semester is dedicated to preparing the final Dissertation Report. Because the DD students already have a Diploma Project elaborated at ENPC, according to the agreement, they may present the same one as Dissertation Report. It is the student's choice if, during the last semester, they prepare or not another Dissertation Report. The final defense, made in French, is organized in front of a special commission, one of its members being the ENPC representative.

As one can notice, the DD student has to make a significant effort compared with its home colleagues to graduate the Master programme in TUCEB, the total duration of the study programme augmenting from 6 to 7 (or 8) years. Even in these circumstances, most DD students have chosen the long term practical training, this activity being remunerated by the companies or design offices, and providing a supplementary financial support for the last year spent in ENPC, when the Erasmus scholarship is no longer available. However, when finalizing the DD programme, the graduate becomes the beneficiary of three diplomas: Licensed Engineer of TUCEB, Master Degree of TUCEB and Engineer of ENPC.

It is obvious that the DD programme represents a very important and welcomed opportunity for the TUCEB students, not only from the professional point of view, but also as a life experience, intercultural relationships, improvement of French language and, nevertheless, for better chances in the employment area. On the other hand, all generations of TUCEB students were well appreciated abroad, most of them being in the leading group from the point of view of professional results. To give just one example, in 2010, Isabela Manelici was awarded with the Excellency Prize Augustin-de-Betancourt, for the best student recruited at ENPC in the framework of international cooperation agreements. Between 2004 and 2013 the DD programme provided a total number of 37 graduates. 13 students are currently involved in the DD programme and other 4 students are already selected for the next academic year 2013-2014.

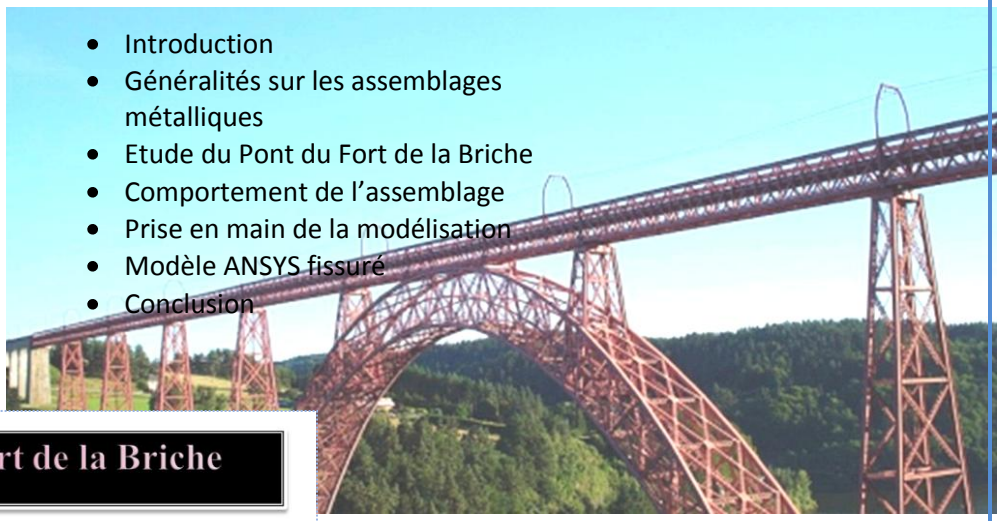
Recently, a significant event took place in the TUCEB, concerning the Double Diploma programme. The defense of the final Dissertation Report was scheduled on the 8th of March 2013, for the last generation of DD graduates. The commission was chaired by Professor Nicoleta RĂDULESCU, member of the Department of Geotechnical Engineering and one of the promoters of the DD agreement, while the other members, professors at TUCEB, were Alexandrina PRETORIAN, Daniela PREDA, Florin BURTESCU, Mădălina STOIAN and Alexandru ALDEA. Professor Roger FRANK kindly accepted to participate as ENPC representative in the commission.

Five registered candidates presented their Dissertation Reports: Ruxandra FLOREA, Viorel SEGĂRCEANU, Irina PAVLOVICI, Dumitru Radu PASCU, Aihan Geandan IBRAM.

The presentations turned out as a real success. All members of the commission, guests and other participants to the public event, were impressed by the high level of the Disertation Reports and the quality of presentations in French language. Consequently, all candidates received the highest grades (9.90 or 10), being congratulated by the commission members.

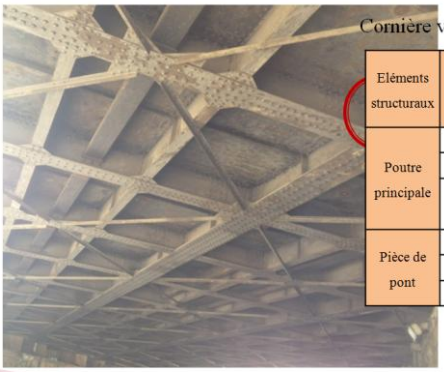
In what follows, excerpts from the five dissertations are given:

Ruxandra FLOREA – *La durée de vie résiduelle des ponts métalliques anciens – La fatigue des assemblages des ponts rails rivetés* (The residual lifetime of old steel bridges).



III. Etude du Pont du Fort de la Briche

- **Assemblage étudié**
  - La pièce de pont et la poutre principale



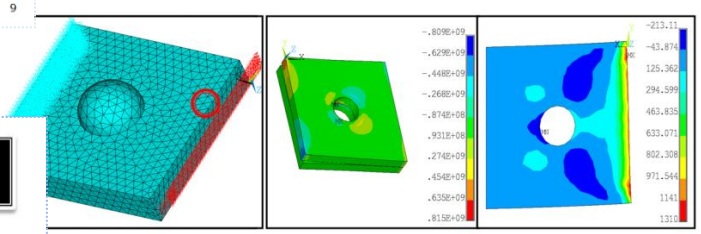
Cornière verticale 100x100x9

Eléments structuraux	Eléments constitutifs	Dimensions (mm)
Poutre principale	Âme	3500 x 11
	Semelles	500 x 10
	Cornières	100 x 100 x 10
Pièce de pont	Âme	500 x 8
	Semelles	350 x 11
	Cornières	90 x 90 x 10

V. Prise en main de la modélisation

Chargement mécanique

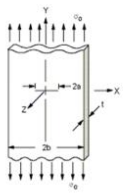
Effort de cisaillement – Charge voiture RER 130 kN

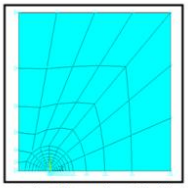


VI. Le modèle ANSYS fissuré

- **Plaque carrée qui contient une fissure dans le sens longitudinal**

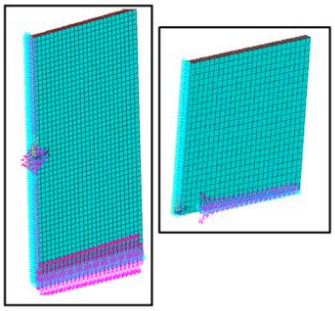
Propriétés du matériau :
E = 30000 N/m², υ = 0.3
Géométrie : a = 1 cm
h = 5 cm
t = 0.25 cm
Chargement– traction :
σ = 0.56 N/m





Yassine El Assami « Calcul de la durée de vie résiduelle de pont métalliques-Application de la mécanique de la rupture »

VCCT



Résultats :

KCALC: K_I = 1.062 Pa $m^{1/2}$
J-INT : K_I = 1.0458 Pa $m^{1/2}$
VCCT : K_I = 1.025 Pa $m^{1/2}$

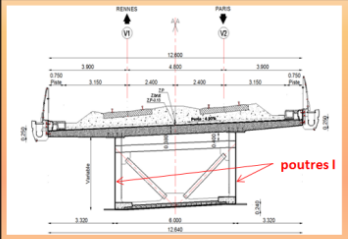
Viorel SEGARCEANU – *Etudes de conception du Viaduc de la Sarthe – Ligne à grande vitesse Bretagne Pays de la Loire* (Design studies for the Sarthe Viaduct – high speed Bretagne railway in the Loire region).

La LGV Bretagne Pays de la Loire et l'ouvrage étudié

- Etude sismique du viaduc de la Sarthe
- Etude de la répartition transversale des charges sur l'ossature métallique avec prise en compte de la torsion
- Etude de la flexion transversale du hourdis supérieur
- Conclusion

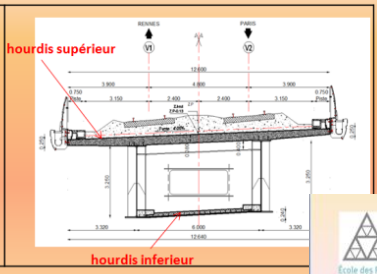
Conception de la coupe transversale du viaduc de la Sarthe

• **Diaphragmes courants**



- type K
- espacés de 11m environ
- diaphragmes abaissés

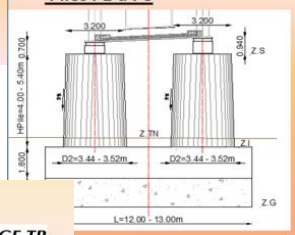
• **Diaphragmes sur appuis**



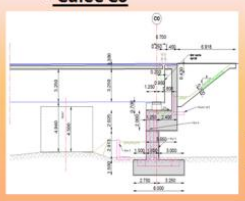
- tôles planes, avec trou d'homme

Appuis du viaduc de la Sarthe

• **Piles P1 à P8**



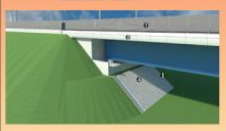
• **Culée C0**

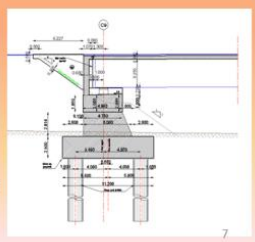


-fondée sur semelle superficielle

-positon de l'appareil dilatation

• **Culée C9**





-fondée sur 8 pieux ϕ1800mm

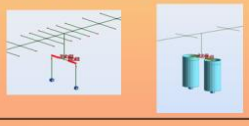
-point fixe de l'ouvrage

Etude sismique du viaduc de la Sarthe Modèle de calcul

• **Piles P1 à P8**

-Masse des piles calculée automatiquement par le logiciel, masse des fondations pas prise en compte

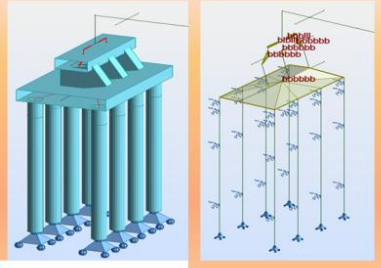
-Fûts des piles encastrés à leur base

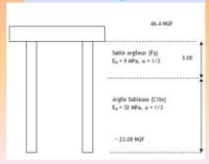


• **Culée C0**

-rigidité verticale et transversale parfaite

• **Culée C9 – point fixe ouvrage**





-Modélisation par des ressorts

Irina PAVLOVICI – *Etude de faisabilité de renforcement parasismique – Les amortisseurs à fluide visqueux* (Feasibility study for earthquake stiffeners – viscous fluid dumpers).

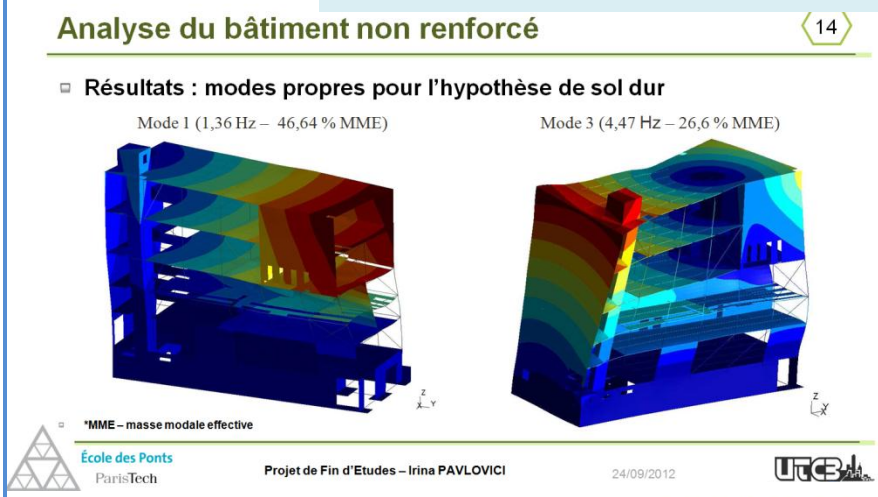
Sujet du PFE:

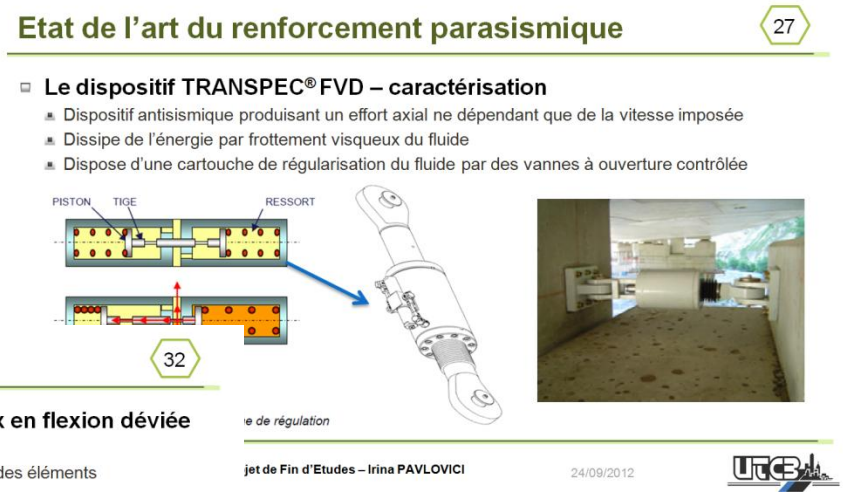
Dans le cadre de l'examen de robustesse au-delà du domaine réglementaire:

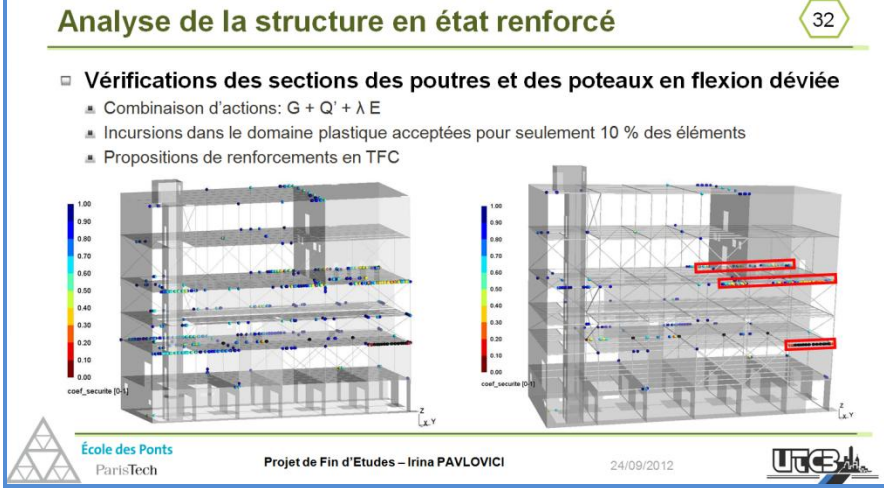
Etude de faisabilité de renforcement parasismique par ajout de technologies innovantes du bâtiment électrique (BL) Sud de la Centrale de Fessenheim

Etapes de l'étude:

- Diagnostic préliminaire du comportement sismique du bâtiment sous 1,5 SMS
- Recherche de solutions et choix d'une solution de référence
- Analyse complète de la solution retenue







Dumitru Radu PASCU – *Approche en éléments finis de coque HP précontrainte* (Finite elements approach for pre-stressed HP shells).

2.4. Importation dans le logiciel EF

Solution 1: modèle 3D solide : PROBLEME

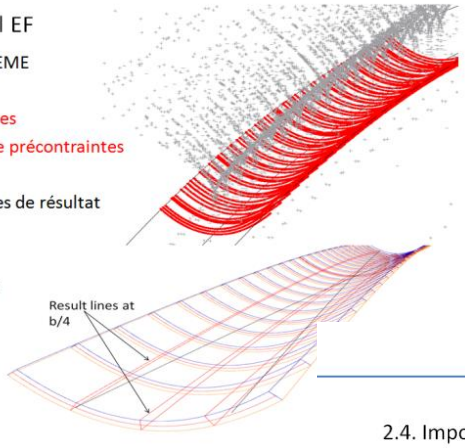
- Trop d'éléments
- RFEM rajoute des nœuds auxiliaires
- Impossible d'intégrer les câbles de précontraintes

ADAPTATION 1:

- Géométrie 3D avec rajout de lignes de résultat
- Pour un autre logiciel (STRAUSS)

ABANDON:

- Trop compliqué pour réutilisation



2. Coques HP: géométrie

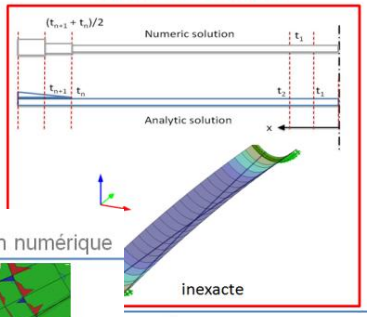
Page 11 École des Ponts ParisTech UTC LEICHT Structural engineering and

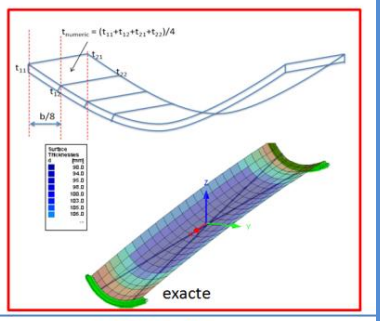
2.4. Importation dans le logiciel EF

Solution 1: modèle 3D

Solution 2: modèle 3D surface: PROBLEME

- RFEM ne peut pas modéliser des surfaces à épaisseur variable => une discrétisation de l'épaisseur est requise





3. 2. Coques HP: comportement mécanique. Solution numérique

3.2.1. Modèle complet

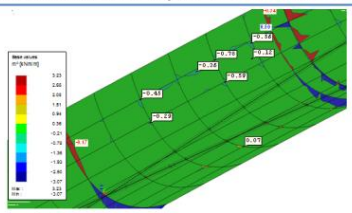
Approche 1. Modèle "complet"

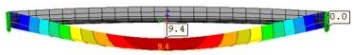
Le logiciel:

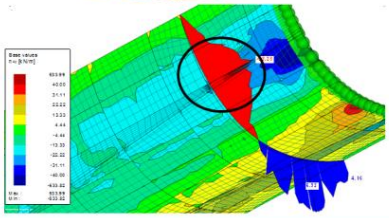
- Problèmes d'interface
- Déformée sous précontrainte
- Maillage automatique

Le modèle:

- Conditions de support







LC:snow 1 kN/m2 version: M

	Analytical solution	RFEM	Difference	Error
$\sigma_{x,sup}$	3433.86 KN/m2	1893.01 KN/m2	1540.85 KN/m2	44.87%
$\sigma_{x,inf}$	-4883.71 KN/m2	-3210.38 KN/m2	1673.33 KN/m2	34.26%
M	173.55 KNm	183.55 KNm	10.00 KNm	5.45%

Page 21 École des Ponts ParisTech UTC LEICHT Structural engineering and specialist consulting GmbH

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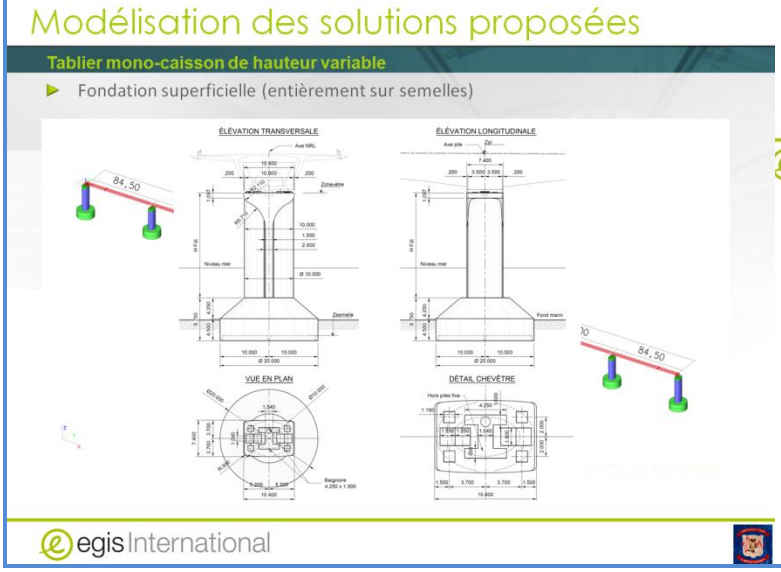
Aihan Geandan IBRAM – *La conception du viaduc de la Nouvelle Route du Littoral de La Réunion* (Conception of the New Coastline viaduct – Reunion Island).



University of Pisa

Prof. Diego Lo Presti proposes new bilateral agreement between University of Pisa and EUCEET Association members:

Prof. Diego Lo Presti sent on 6th March 2013 a message to all academic members of the EUCEET Association, informing them that he was nominated as ERASMUS coordinator of Department of Energy, System, Territory and Construction Engineering - DESTeC at the University of Pisa and inviting them to conclude Bilateral Agreements in the field of Civil & Building Engineering with Pisa University.

ECCE – European Council of Civil Engineers

57th ECCE General Meeting

The 57th ECCE General Meeting will be held on **30th May – 1st June 2013**, at the Ordem dos Engenheiros premises, in Lisbon, Portugal hosted by the Ordem dos Engenheiros (OE).

The 57th ECCE General Meeting will be combined with the ECCE Conference "*Changes in Civil Engineering*" that will be held in the afternoon of Friday 31st May 2013.

http://www.ecceengineers.eu/news/2013/57_ecce_meeting.php?id=41

Vilnius Gediminas Technical University

Prof. Linas Juknevicius invites EUCEET Association members to attend 11th International Conference "*Modern Building Materials, Structures and Techniques*".

The event will take place at BEST WESTERN Vilnius Hotel, on 16th –17th May, 2013. More information is available on the Conference site: http://mbmst.vgtu.lt/index.php/mbmst/mbmst11

Technical University of Cluj-Napoca

Prof. Doina Verdeş invites EUCEET Association members to Cluj-Napoca:

Faculty of Civil Engineering, Technical University of Cluj-Napoca, Romania, organizes the International Conference "***Tradition and Innovation - 60 Years of Constructions in Transilvania"*** on the occasion of the Faculty's 60 years Anniversary.

The event will take place at Cluj-Napoca, on 7th - 9th November, 2013. More information is available on the Conference site: www.c60.ro

FROM PARTNERS

2013 CLAIU – EU Conference

"The Bologna Process and the Engineering Education"

The Conference will be held at Universita di Bologna, on 11th-12th April 2013

The 2013 CLAIU EU Conference will focus on the achievements of the Bologna process since its first declaration in 1999.

The topics to be covered will include:

- Comparative remarks on Bachelor, Master and Doctoral degrees
- Impact on "students' mobility and degrees " recognition' in the EU - countries
- The factors which helped the process among others credit system, diploma supplement, quality assurance ...
- The circular effect: homogenization encourages mobility while mobility facilitates homogenization
- Did the Bologna process enhance mobility and employability?
- 'Vertical' versus 'horizontal' mobility
- Quality assurance versus employability
- Impact on the labour market
- Creativity oriented versus applications oriented engineering education programmes
- Impact in the professional labour market
- Perspectives on Engineering Doctoral degrees in the labour market
- European young talents selection: the triple I- concept (internationalization, intersectoral, interdisciplinary) in doctoral training programmes
- Innovation in engineering education and programmes

CLAIU – EU Conference
The Bologna Process and the Engineering Education

About CLAIU-EU

CLAIU-EU (Council of Association of long-cycle Engineers, of a university or higher school of engineering of the European Union) provides a Forum for consultation and collaboration within Europe among associations of engineers who have broadly been educated to Master degree level.

The objectives of CLAIU-EU serve to promote the interests of engineers who have followed a more theoretically oriented education and who are concerned with fundamental concepts and their practical application.

Previous CLAIU-EU Conferences:

- **"The Engineering Doctorate",** 9-10 February, 2012, Madrid
- **"The Formation of the Engineer- International Models",** 11-12 February, 2011, Roma
- **"Engineering Master Degrees in Europe",** 12-13 February, 2010, Brussels

Key-note lectures and papers can be downloaded from http://claiu.fabi.be/home/?page_id=37

FROM THE EUROPEAN UNION

Making the EU more attractive for foreign students and researchers

Cecilia Malmström (EU Commissioner for Home Affairs)

Press Conference/Brussels, 25 March 2013

The EU needs to attract talented non-EU students and researchers who can contribute to our growth and competitiveness with their knowledge and skills. Moving to Europe temporarily is an opportunity embraced by over 200.000 students and researchers from outside the EU every year. However, far too many of them have to face unnecessary bureaucratic hurdles. Current rules for obtaining a student visa or a residence permit are often complex and unclear; procedures can be lengthy and vary considerably across Member States and moving from one Member State to another can be very difficult or even impossible. This hampers the possibility to provide EU countries with a greater pool of talent and reduces the appeal of the EU as a world centre for excellence.

Today the Commission proposed to make it easier and more attractive for non-EU national students, researchers and other groups to enter and stay in the EU for periods exceeding three months. New legislation will set clearer time limits for national authorities to decide on applications, provide for more opportunities to access the labour market during their stays and facilitate intra-EU movement.

"Coming to the EU for research or study is far more difficult than it should be. We have to remove these obstacles to make the EU more open to talents. Such mobility benefits the EU and our economy through the circulation of knowledge and ideas." said EU Commissioner for Home Affairs, Cecilia Malmström.

"*Knowledge is power, as the saying goes: it is vital that we attract the brightest and best researchers and students because they contribute to a successful knowledge economy in the EU. Our aim through the Marie Curie Actions and new Erasmus for All programme is to make Europe the destination of choice for higher education, research and innovation*," said Androulla Vassiliou, Commissioner for Education, Culture, Multilingualism and Youth.

Experience with the implementation of current legislation has shown that Member States were not able to fully address the difficulties that applicants face when wanting to come to the EU to study or conduct research. The Commission is now proposing to set clearer, more consistent and transparent rules across the EU. The two current Directives on Students and Researchers will be modified and replaced by a single new Directive, which will improve:

- Procedural guarantees, in particular through a 60-day time limit for Member States' authorities to decide on an application for a visa or residence permit, which will make the application process more straightforward and transparent.
- Intra-EU mobility and transfer of skills and knowledge. Simpler and more flexible rules will increase the possibility for researchers, students and remunerated trainees to move within the EU, which is particularly important for students and researchers enrolled in joint programmes. Family members of researchers will also be granted certain mobility rights.
- Access to the labour market. During their studies, students will be allowed to work for a minimum of 20 hours per week so that they can support themselves adequately and contribute economically. Researchers and students will also be able to remain for a period of 12 months under certain conditions on the territory after finalisation of their studies/research to identify job opportunities or set up a business. This will not amount to an automatic right to work, as granting a work permit remains a national responsibility.
- The overall protection of additional groups of non-EU nationals, such as au pairs, school pupils and remunerated trainees, who are not covered by the existing EU legislation.

Next steps

The proposed Directive which is presented in the form of a recast now needs to be discussed and agreed upon by the European Parliament and the Council of the EU. The Commission hopes for the new rules to take effect as of 2016.

The overall picture at a glance

Despite the current economic downturn and the rising unemployment levels, many EU Member States still struggle to fill skilled labour positions. There is evidence that this struggle is going to persist during the decade ahead for both economic and demographic reasons.

One of the problems is that the EU is not able to attract the workforce it needs while other countries worldwide are doing much better when it comes to making it more appealing for these talents to join them at the earlier stage of universities studies and research projects. It is therefore in the EU's own interest to become more attractive for foreign students and researchers and to increase its appeal as a world centre for excellence. More exchange students and international scholars will lead to economic growth, spur innovation and lead to more jobs in the long run.

In 2011, around 220,000 non-EU nationals entered the EU for the purposes of studies, pupils exchange, unremunerated training or voluntary service[1]. The highest number of non-EU nationals arrived for the purpose of education and studies. In 2011, the countries which received the highest number of students were France (64,794), Spain (35,037), Italy (30,260), Germany (27,568) and the Netherlands (10,701).

The same year around 7 000 non-EU nationals arrived for purposes of research in the 24 EU Member States covered by the data; mostly in France (2,075), the Netherlands (1,616), Sweden (817), Finland (510) and Spain (447)[2].

Today, the European Migration Network (EMN) run by the Commission also publishes a Study on Immigration of International Students to the EU. It provides a sound analytical overview and statistical information on the immigration and mobility policies of Member States and of their national strategies to promote Europe as an attractive destination for international students.

Source: http://europa.eu/rapid/press-release_IP-13-275_en.htm?locale=en

NEWS FROM EUROPE

Sixth EUA-CDE Annual Meeting

From Student to Researcher - are we on the right track?

Hosted by University of Warsaw, Poland 18-19 June 2013

The trend is clear: structured doctoral education is becoming the norm for doctoral education. Universities have introduced doctoral schools and taught courses; they are monitoring the progress of doctoral candidates and quality of supervision and research in doctoral programmes. At the same time, new legislation is being drafted or implemented across the continent. There are new requirements for the institutional management of doctoral education, and quality assurance agencies and research assessments are taking a more specific interest in the area. This is a good time to ask: are we keeping focus on the goal of doctoral education, to make students into researchers? Are we on the right track?

The Annual Meeting of the EUA Council for Doctoral Education is the largest gathering of all stakeholders in the field of doctoral education in Europe. It will provide ample opportunities for open discussions of challenges and opportunities between colleagues from all over Europe. There will be learning opportunities for newcomers to the field of doctoral education as well as a master class for the 'veterans' of the field.

Registration will open in April.

Audience
The conference aims specifically at opening discussions between different stakeholders such as university leaders, researchers, political decision-makers, funding organisations, quality assurance agencies and all others interested in the development of doctoral education.

Source: European University Association (http://www.eua.be/EUA-CDE-Warsaw.aspx)

EUA publishes new report on quality assurance in doctoral education

A new report published on 26 February 2013 by EUA analyses the development of quality assurance processes (internal and external) for doctoral education in European universities.

The report, which is based on quantitative information gathered from a survey of over 100 universities across Europe and qualitative information collected during a series of focus groups and a workshop, is the outcome of a two-year EC-supported project led by EUA.

The importance of training researchers has been recognised as crucial to the future of the European knowledge society, and the number of doctorate (PhD) holders has risen sharply in recent years. Improving accountability and enhancing quality of doctoral education have therefore become increasingly important.

Entitled "Quality Assurance in Doctoral Education – results of the ARDE project", the new report underlines that doctoral education is being managed more professionally (in particular with the establishment of doctoral schools) and that institutions are giving more attention to accountability and quality enhancement.

The ARDE project highlighted that for example universities have set up, or are setting up, internal quality processes at doctoral level including mechanisms for monitoring time-to-degree and completion rates, guidelines for admission, supervision and the thesis. These processes also focus on the quality of the research environment and seek to engage different stakeholders. The ARDE project survey highlighted, for example, that almost 90% of respondents had written procedures/regulations for admission of candidates and 91% systematically monitored progress of candidates.

In the key area of doctoral supervision, there is a notable trend towards establishing rules or guidelines as well as using individual contract-type agreements between supervisor and supervisee.

Quality enhancement processes are also prominent in doctoral education. In the area of supervision, for example, universities are establishing training for supervisors as well as creating spaces for exchanging experiences and good practice, though much is still to be done in this area. Career development of doctoral candidates is another area where the report highlights that much has been done, for example, through transferable skills training. Of the responding institutions 79% said they offered career development support, but only around half of these monitored the quality of the career services. By comparison, only 23% of respondents tracked the careers of PhD graduates.

While accountability and quality enhancement are purposes for all three cycles of higher education (bachelor, master and doctorate), the report points out that doctoral education is qualitatively different from the other two cycles. Therefore, QA processes for doctoral education must take as a point of departure the specific needs of this cycle.

In terms of external quality assurance, the report points out that several external stakeholders often monitor doctoral education in parallel (e.g. national QA agencies, research assessment exercises and external funding bodies). The report highlights that a lot could be done by establishing a much higher degree of convergence between the many different evaluations that programmes are submitted to.

The Accountable Research Environments for Doctoral Education (ARDE) project was coordinated by EUA in partnership with University College Cork (UCC), Universities Austria (UNIKO) and the Conference of Rectors of Academic Schools in Poland (CRASP). It was supported by the Lifelong Learning Programme of the European Commission.

The full report can be downloaded on http://www.eua.be/Libraries/Publications_homepage_list/EUA_ARDE_Publication.sflb.ashx

Source: European University Association

NEWS FROM THE REST OF THE WORLD

Workshop: *Applied course on Engineering Geology and Rock Engineering*

11th and 12th July, 2013 at Griffith University, AUSTRALIA

The Griffith School of Engineering and Griffith Centre for Infrastructure Engineering and Management are delighted to announce that a world-renowned professor and practitioner, **Dr. Paul G. Marinos**, will give a series of lectures on engineering geology and rock engineering on the 11th and 12th of July, 2013 at Griffith University (Gold Coast campus).

Paul Marinos has been practicing for more than 40 years, and has been involved in a wide variety of major civil and mining projects related to tunnels and dams in almost 20 countries. The 2-day workshop will present an overview of the engineering behaviour of various rock types, look at important design parameters, and cover challenges that arise during tunneling and dam constructions. Attending this workshop will benefit a variety of practitioners, including geologist and geotechnical engineers, mining managers and academics.

This workshop is the first in a series of events that the Griffith Centre for Infrastructure Engineering and Management (CIEM) intends to deliver to the geotechnical and mine community in Australia in the next few years. Past workshops organized by CIEM were marked by great success in bringing practitioners and academics together, and providing a platform to share knowledge and experience.

Source: http://www.griffith.edu.au/conference/geology-rock-engineering-workshop2013

CALENDAR

Date	Event	Place
23-25. 05. 2013	2nd International Balkans Conference on Challenges of Civil Engineering http://bccce2013.epoka.edu.al/	**Tirana, AL**

11-13. 06. 2013	International Conference on Enhancement and Innovation in Higher Education http://qaa10.gla.ac.uk/index.php/QAA/index	**Glasgow, UK**

16-20. 09. 2013	SEFI ANNUAL CONFERENCE 2013 - 40th anniversary of SEFI http://www.kuleuven.be/communicatie/congresbureau/congres/sefi2013	**Leuven, BE**

17-19. 10. 2013	International Scientific Conference "*Integration, Partnership and Innovations in Construction Sciences and Education*"	**Moscow, RU**

http://umd.mgsu.ru/index.php?option=com_content&view=article&id=360:-17-19-2012&catid=47:2012-06-22-14-10-39&Itemid=115