

10 YEARS OF THE SERBIAN SOCIETY FOR COMPUTATIONAL MECHANICS - Miloš Kojić, president of the SSCM

Serbian Society for Computational Mechanics (SSCM) was founded on 28 June 2006 during First South-East European Conference on Computational Mechanics (SEECCM06). The Conference was held in the City of Kragujevac. The founding document was hand-written by professor Manolis Papadrakakis, and the text was prepared by professors Papadrakakis and Onate. It was then signed by the participants of the Conference. The copy of the original founding document was published in the first volume of the Journal of the Serbian Society for Computational Mechanics (JSSCM). The presidency and the president were elected.

In this short review, we summarize the main achievements of the SSCM. First, it can be stated that establishing SSCM was a big event and it had enormous significance for the development of the field and attraction of young investigators. The SSCM became a member of international associations: International Association of Computational Mechanics (IACM) and European Community on Computational Methods in Applied Sciences (ECCOMAS). This membership provided a direct contact with these important associations for guidance and participation in the world leading meetings and conferences.

Important decision of the Presidency of the SSCM was to establish the journal of the Society, the JSSCM. The journal started from the first year of the SSCM, 2006, with two issues per year. The Editorial Board consists of world leading authorities in computational mechanics. The journal established a solid standard for publishing criteria, with domestic and international reviewers. The reviewing process has been strictly followed. The journal is under auspices of ECCOMAS. In Table 1, a summary is given of the publications data in the JSSCM. It can be seen that the journal has been well established domestically and internationally.

| | | No. of domestic papers | No. of domestic authors | No. of international papers | No. of international authors | No. of pages |
|--------------|------|------------------------|-------------------------|-----------------------------|------------------------------|--------------|
| 2007 | | | | | | |
| Vol 1 | No 1 | 10 | 43 | 6 | 22 | 196 |
| 2008 | | | | | | |
| | No 1 | 5 | 17 | 2 | 3 | 120 |
| Vol 2 | No 2 | 5 | 19 | 3 | 15 | 90 |
| 2009 | | | | | | |
| | No 1 | 15 | 75 | 0 | 0 | 372 |
| Vol 3 | No 2 | 1 | 3 | 6 | 16 | 99 |
| 2010 | | | | | | |
| | No 1 | 1 | 3 | 6 | 15 | 101 |
| Vol 4 | No 2 | 3 | 12 | 4 | 11 | 109 |
| 2011 | | | | | | |
| | No 1 | 2 | 12 | 7 | 30 | 118 |
| Vol 5 | No 2 | 9 | 36 | 6 | 39 | 150 |
| 2012 | | | | | | |
| | No 1 | 8 | 29 | 8 | 25 | 234 |
| Vol 6 | No 2 | 4 | 27 | 6 | 16 | 152 |
| 2013 | | | | | | |
| | No 1 | 2 | 3 | 4 | 17 | 81 |
| Vol 7 | No 2 | 4 | 22 | 1 | 5 | 44 |
| 2014 | | | | | | |
| | No 1 | 3 | 13 | 2 | 7 | 74 |
| Vol 8 | No 2 | 3 | 15 | 1 | 8 | 53 |
| 2015 | | | | | | |
| | No 1 | 0 | 0 | 5 | 18 | 64 |
| Vol 9 | No 2 | 2 | 7 | 3 | 9 | 46 |
| TOTAL | - | 77 | 336 | 70 | 266 | 2103 |

Table 1. Journal of the Serbian Society for Computational Mechanics

Significant advances in computational mechanics have been achieved in several groups at the Serbian university centers. The influence of members of the SSCM on university courses, to bring computational mechanics methods into the content of courses in all levels, can be measured by the number of Ph.D. theses; this number is shown in Table 2. The activity of the

SSCM can be demonstrated by engagements of researchers (mostly young) in scientific and industrial projects, and by publications; data are given in Table 2.

| | No. memb. | Papers in journals | | PhDs | Projects | | Conf. | |
|--|-----------|--------------------|------|------|----------|------|-------|------|
| | | dom. | int. | | dom. | int. | dom. | int. |
| M.Kojić N.Filipović | 63 | 584 | 86 | 10 | 5 | 21 | 230 | 57 |
| R.Slavković | 4 | 9 | 2 | 1 | 1 | 5 | 13 | 7 |
| M.Živković | 15 | 31 | 35 | 6 | 6 | 5 | 145 | 64 |
| B.Stojanović M.Ivanović | 7 | 25 | 20 | 4 | 3 | 7 | 30 | 5 |
| M.Trajanović | 9 | 33 | 21 | 7 | 19 | 3 | 27 | 45 |
| S.Maksimović | 10 | 64 | 91 | 6 | 3 | 0 | 142 | 27 |
| L.Cvetičanin I.Kovačić | 5 | 122 | 88 | 8 | 9 | 16 | 80 | 21 |
| K.Hedrih | 26 | 234 | 84 | 5 | 1 | 0 | 306 | 38 |
| Z.Marković | 4 | 60 | 8 | 1 | 2 | 0 | 11 | 56 |
| TOTAL | 143 | 988 | 359 | 45 | 50 | 74 | 689 | 238 |

Table 2. Groups of researchers, their leaders and summary of results

The main results of the groups are reported in this special issue by summaries prepared by the group leaders.

We emphasize here that Kragujevac is the dominant center in the domain of computational mechanics: four groups oriented to the development and applications of computational methods in engineering and bioengineering (mainly using, further developing and applying the domestic FE package PAK – started in 1975), and one in computational chemistry.

Finally, we notify here that SSCM is the founder of Bioengineering Research and Development Center BIOIRC, where the main activity is the development and application of computational methods and software. The Center was founded in 2009 and co-founder was the City of Kragujevac. The employees of the Center are Ph.D. students. The activities and main results of the Center are summarized in Table 3.

| | Domestic projects | International projects | No. of employees with PhD | Total No. of employees | No. of scholarships |
|-------------|--------------------------|-------------------------------|----------------------------------|-------------------------------|----------------------------|
| 2008 | 3 | 5 | 4 | 11 | 2 |
| 2009 | 3 | 6 | 3 | 12 | 4 |
| 2010 | 3 | 5 | 3 | 13 | 5 |
| 2011 | 2 | 3 | 3 | 19 | 2 |
| 2012 | 2 | 3 | 3 | 19 | 1 |
| 2013 | 2 | 4 | 4 | 19 | 1 |
| 2014 | 2 | 4 | 4 | 19 | 1 |
| 2015 | 2 | 5 | 5 | 19 | 4 |
| 2016 | 2 | 5 | 8 | 21 | 3 |

Table 3. Bioengineering Research and Development Center BIOIRC, Kragujevac

SSCM participated in organizing conferences, among which three SEECCM conferences. The 4th SEECCM is announced to be held in Kragujevac, 3-5 July 2017.

In summary, we can state that SSCM has fulfilled its role in Serbia, and that we can be optimistic for the future of computational mechanics.

It has been great honor to serve as president of the SSSCM and I am thankful to the members of the SSCM for their enthusiasm and contributions to the successful journey. I am also thankful to the ECCOMAS and IACM on their continuous support over years.