**IEEE Technical Committee on Variable Structure and Sliding Mode Control: May 2014 Report**

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Since the previous report submitted in December 2013, the Variable Structure and Sliding Mode Control community has been involved with the following activities:-

1. The TC has been focusing on arrangements for our next workshop which will be held in Nantes, France from June 29th to July 2nd 2014 and will be hosted by Institut de Recherche en Communications et Cybernétique de Nantes – IRCCyN, Ecole Centrale de Nantes. The details are available on the workshop website at <http://vss2014.irccyn.ec-nantes.fr/>. Our next TC meeting will be at the workshop.
2. The TC have been working to organize a Tutorial Session entitled Sliding mode control – State of the Art with Applications for the 13th European Control Conference, ECC2014, Strasbourg 24 – 27 June 2014. This session is aimed at those who are not currently working in the area. A tutorial lecture will be presented followed by a number of recent, successful applications studies. The emphasis will be on constructive design
3. Following the TC meeting at CDC 2013 the community has been soliciting expressions of interest for hosting VSS 2016. One full bid has now been prepared and a final decision on the location of the next workshop will be made and announced at VSS 2014.
4. The community is developing a series of Summer Schools primarily for PhD students. The first will be on Sliding Mode Control taking place from 08 to 12 June 2015 in the Centre Paul Langevin, Aussois, in the French Alps. The topics for lectures have two focii : fundamentals of SMC (observers, high-order, infinite-dimensional systems, discrete-time), and applications. A second Summer School is planned to take place in Nanjing, China.
5. The TC community is involved in publishing various special issues. In May 2014 the following special issue was published:  
    Basin, L. Fridman, W. Perruquetti. Special issue on 2010–2012 Advances in Variable Structure Systems and Sliding Mode Algorithms. Journal of the Franklin Institute, Volume 351, Issue 4, May 2014, Pages 1823-1830

A further special issue is under development:

Sliding Mode Based Disturbance Estimation, Attenuation and Fault Detection, IET Control Theory and Applications, 32 papers received