**IEEE Technical Committee on Variable Structure and Sliding Mode Control: May 2013 Report**

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Since the previous report submitted in December 2012, the Variable Structure and Sliding Mode Control community has been involved with the following activities:-

1. Following the twelfth international workshop on variable structure systems which was held in Mumbai from 12th-14th Jan 2012 an edited collection of highly ranked papers has now been published (2013) by Springer Verlag entitled 'Advances in Sliding mode control-Concepts, Theory and Implementation'. A link to the book is at <http://link.springer.com/book/10.1007/978-3-642-36986-5/page/1>
2. The TC is planning our next workshop which will be held in Nantes, France in 2014. The conference will take place from July 1st to July 4th 2014 and will be hosted by Institut de Recherche en Communications et Cybernétique de Nantes – IRCCyN, Ecole Centrale de Nantes. It has been scheduled to dovetail with ECC 2014 and is now advertised on the Technical Committee website.
3. TC members organised an invited session within CDC 2012 in the area of sliding modes for hybrid and impulsive systems. Six papers were presented.
4. We organised an invited session on variable structure systems for the IFAC Joint Conference (5th Symposium on System Structure and Control, 11th Workshop on Time-Delay Systems, 6th Workshop on Fractional Differentiation and its Applications), which took place in Grenoble, France in February 2013 (<http://www.gipsa-lab.fr/SSSC2013/>).
5. A special session has been proposed, coordinated and submitted for evaluation for CDC2013 entitled "Advances in High-order Sliding Mode Control"
6. The Committee has lobbied successfully for keywords relating to the subject area to be included in the list of key words for the IFAC World Congress in 2014.
7. Papers have been submitted for a Special Issue of the IMA Journal of Mathematical Control and Information entitled ‘Lyapunov methods for Second Order Sliding Modes’ which will be guest edited by Professor Jaime Moreno.
8. Members of the TC are involved in the development of a Special Issue of Elsevier's Journal MATCOM on “Discontinuous Dynamical Systems: Theory and Numerical Methods” (http://www.maths.nuigalway.ie/~piiroinen/matcom/).