**IEEE Technical Committee on Variable Structure and Sliding Mode Control: December 2012 Report**

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Since the previous report submitted in April 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 will now be published by Springer Verlag on 'Advances in Sliding mode control-Concepts, Theory and Implementation' . This collection will mainly contain the expanded version of the plenary talks and invited papers presented in VSS 2012 together with some papers which received high review scores.
2. The TC is already involved in planning our next workshop which will be held in Nantes, France in 2014. The TC Chair visited Nantes in June to confirm the local arrangements. 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.
3. 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.
4. 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/).
5. TC members have organised an invited session within CDC 2012 in the area of sliding modes for hybrid and impulsive systems. Six papers will be presented.
6. We are organising 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 will take place in Grenoble, France in February 2013 (<http://www.gipsa-lab.fr/SSSC2013/>). The session will contain both theory and application results and the preliminary title is "Recent results on Variable Structure Systems".