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## ***Contribution of synchronous compensators to the stability of inverter-based generation***

By

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### **Abstract**

The power system resulting from the energy transition will lack inertia and short circuit strength which affects the stability of inverter-based resources (IBRs) under grid-following control schemes ([1], [2]). Despite the developments in grid-forming control of IBRs, synchronous compensators are being proposed and installed in many power systems to address the aforementioned issues ([3], [4]).

This contribution discusses the contribution of synchronous compensators to the converter driven stability of type 3 and 4 wind generators. In addition, their contribution to the damping of inter-area oscillations will be addressed [5].

### **References**

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## *Short biography of Prof. Dr. Luis Rouco Rodríguez*



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**Luis Rouco** obtained his MSc and PhD degrees in Electrical Engineering from the Polytechnic University of Madrid in 1985 and 1990 respectively. He is Full Professor of Electrical Engineering in the School of Engineering of Universidad Pontificia Comillas.

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Prof. Rouco develops his research activities at Instituto de Investigación Tecnológica (IIT). His areas of expertise are modelling, simulation, simulation, control and identification of electric power systems where he has led more than 250 research projects for Spanish public administrations, Spanish electric utilities and other Spanish engineering and industrial companies. He has also developed research projects for foreign companies and institutions. Prof. Rouco has published more than 200 papers in international journals and conferences. Prof. Rouco is Senior Member of IEEE and Distinguished Member of Cigré.

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