

# ***Development Framework for DRONES as Smart Autonomous Systems***

***8th International Conference on Information, Intelligence, Systems and Applications (IISA2017)***

***Loris Penserini, TTP Technology***

***Emanuele Tonucci, TTP Technology***

***Gianluca Ippoliti, Dipartimento di Ingegneria dell'Informazione Università Politecnica delle Marche***

***Jessica Di Labbio, Dipartimento di Ingegneria dell'Informazione Università Politecnica delle Marche***

***Abstract— Smart society implies much more complexity than technologies and related infrastructures able to support it, namely future and new digital technologies must be carefully balanced with the ability at design time to mitigate the complex interactions between technology, citizen and democracy. As long as complex systems such as drones will increase to become an integral part of the social context, it is particularly evident that such technologies should be aware and able to reason on and adhere to rules of law, trust and ethical principles any time they perform a task or service. This drone development framework will pave the way for a new generation of development methodologies much more devoted to smart society technologies and able to model the contextual knowledge that surrounds and affects the complex system's behaviors.***