
Presentation of GT Yoda

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R esum e

In recent years, distributed software systems have faced a set of new challenges raised by new Internet-scale distributed systems and highly dynamic infrastructures. Indeed, with the growth of the Internet-of-Things and Cyber-Physical Systems domains, new kinds of highly dynamic applications such as applications for smart-cities or Industry 4.0 have emerged, some of them being critical for cost or safety reasons thus calling for formal guarantees of correctness. Furthermore, new kinds of distributed utility computing paradigms have also recently and quickly entered the landscape such as Fog-, Edge- or mobile-computing, where devices may dynamically enter or leave the infrastructure. This rapid growth in dynamicity calls for programming support mature enough to provide safe and reliable adaptation mechanisms, but also such software-engineering-related properties as modularity, abstraction, and composability. This working group is intended to host discussions of new trends and foster contributions of the French community to the definition of adaptation mechanisms that would allow developers to design trustworthy and optimal dynamic distributed software and systems.

This group is open to a broad family of researchers from various communities: software engineering, languages, control theory, application domains (IoT, CPS), etc.

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