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**Topics:** Human Aspects in Software Engineering, Emotion AI, Biometrics, Developers' wellbeing

**Abstract:** Software development is an intellectual activity requiring creativity and problem-solving skills, which are known to be influenced by emotions. Developers experience a wide range of affective states during programming tasks, which may have an impact on their job performance and wellbeing. Early recognition of negative emotions, such as stress or frustration can enable just-in-time intervention for developers and team managers, in order to prevent burnout and undesired turnover.

In this talk, I will present an overview of recent research findings of a series of empirical studies aimed at investigating the link between emotion and productivity, understanding the triggers for developers' emotions, and the strategies they implement to deal with negative ones and restore positive feelings. Furthermore, I will present the advances and open challenges in the recognition of developers' emotions using a minimal set of non-invasive biometric sensors, i.e. a wristband capturing the electrodermal activity and heart-related metrics.

**Brief Bio:** Nicole Novielli is an Associate Professor at the University of Bari, Italy. Her research interests lie at the intersection of software engineering and affective computing with a specific focus on emotion mining from software repositories, natural language processing of developers' communication traces, and biometric recognition of developers' emotions.

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