FCTUC creates expert in computer security

"Intelligent Professor-inspector" detects problems on software, fires alerts, produces reports and gives instructions towards the fast correction of anomalies

An innovative technology that detects and corrects, in real time, security problems on software and was created by a 'start up' formed by researchers of the University of Coimbra (UC).

Entitled 'CodeV' (Verification Code), the technology, already available, is a «intelligent inspector-professor that detects security problems on software throughout all of its development phases, fires alerts, produces reports and gives instructions towards the fast correction of identified problems», according to a note from the communication department of the rectory of UC.

Developed by DOGNÆDIS, a 'start up' specialist in information security formed by researchers of the College of Science and Technology of the University of Coimbra (FCTUC), the product works as a «computer security expert», according to Francisco Rente, executive director of the company. «It is an intelligent agent that understands how a software works and if it has or not security problems», explained the also researcher of FCTUC to the Lusa Agency. According to Francisco Rente, this technology sets apart from other equivalents by the way it interacts with its users, giving «relevant information since the beginning of the process of conception of a software», allowing a reduction of costs and higher efficiency.

That which distinguishes CodeV, result of two years of investigation, is the fact that it «is a system that faces computer security as a continuous and holistic process. As such, it is gifted with intelligent algorithms that use a very high level of knowledge and logic that

allow to detect a wide gamma of problems, namely violation of databases with criminal ends or intrusion on the authentication systems», sustains the researcher on the announcement.

Tested on the «40 largest free software existent on the market, namely on software used by the Portuguese State, CodeV identified 28 vulnerabilities of the zero-day kind, i.e., security problems unknown until this date», according to the note of UC. These 28 vulnerabilities «will be publicly disclosed but in a responsible fashion, ensuring that they are not used to malicious ends before there is a solution available», it says.

Francisco Rente referred also that the target-audience of CodeV consists of companies that produce software and large state organizations that develop software. Entities that buy «custom made software» are also between the main recipients of this technology, that allows to verify the security of their products. CodeV is already being commercialized and a sample version of the technology is available for free on the company website.

Translation from the original.