

Multi Agent Systems for Agricultural stakeholders

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Abstract- Nowadays, agricultural researches have won a remarkable recognition all over the world. Agriculture is a complex system that involves so many stakeholders who are geographically distributed and connected in various ways. As such, it is inevitable to maintain timely information flow among stakeholders and the change of global behaviour of the system due to slight variation of an entity. This paper reports on the design and implementation of a multi agent system solution to integrate stakeholders in the process of agriculture.

The system has been structured with five agents, namely, Message Agent, Interface Agent, User Profile Agent, Crop Management Agent, and Selling Agent. The Message Agent plays a key role in guiding and passing messages to other agents and Interface Agent displays and distributes the information in a suitable form for the user whereas User Profiler Agent creates individual user profiles according to individual preferences. Crop Management agent and Selling Agent are the two main agents who make decisions using external and internal information. The system has been developed on JADE environment and can connect via web access.