Construction projects depend to a large extent on information, and because of increasing projects complexity and requirements, the amount of information and processes required to be managed have increased a lot, and the construction sites became intensive environments with information processed and managed. The successful execution of a project depends heavily on collaboration, coordination and organization among project members, which depend on efficiency and effectiveness of communication and information exchange. The effective communication provides a lot of opportunities for project members to control and monitor project execution, changes, managing expectations and plans, improving decisions-making processes, solving problems at appropriate times, etc. The geographical separation and distribution of construction projects and project members’ sites make one of the challenges facing communication and information management. A lot of time, expenses, and effort are spent on information communication and processing in projects.

Developing the current performance of information and communication management gives many benefits and savings, through adopting ICT that has proved its great importance during the last three decades.

This work aims to investigate and diagnose the problems, challenges, weaknesses, and inefficiencies that are related to information and communications management in projects in Iraqi construction sector. Studying the diagnosed matters and the different solutions of ICT to improve project management is following that process. The research presents a system to process a lot of the problems, challenges, weaknesses, and inefficiencies mentioned, and to improve the performance of project management and execution. The suggested system depends on Web and Internet technologies. The research involved applying the proposed
system on a sample construction project (Case Study). The results show that such system can greatly improve the performance of the current state of project management through improving the processes of information and communication management.

The research shows that ICT and WPMSs present a lot of solutions and benefits to the construction industry and can greatly improve and enhance the processes of information and communication, and project management and execution as a whole. However, several preliminaries are required in order to increase the probability of applying the system and technologies successfully and more effectively.