



RAD-2

FMCW Software Defined Radar for Range and Speed Estimation

Ahmed Metwally Hegazy Sherief
Senior Student, Benha University, Benha, Egypt
Ahmed1101335@feng.bu.edu.eg

Mustafa Mohammed Mosaad
Senior Student, Benha University, Benha, Egypt
mostafa11792@beng.bu.edu.eg

Supervisor: Dr. Ayman Mustafa Hassan, Lecturer
Benha University, Egypt, ayman.mohamed@bhit.bu.edu.eg

This paper demonstrates the design and implementation of a 2.4 GHz FMCW radar system to be used as an anti-collision radar for automotive applications, first we examine the theoretical foundation behind the FMCW radar then the system components, specifications and tools used to build it. And finally we introduce the result of the system simulation and testing.