航空学报 » 1998, Vol. 19 » Issue (6) :87-90 DOI:

雷达和红外成像双传感器信息融合目标识别研究

郝重阳, 唐文彬

西北工业大学电子与信息工程研究所, 西安, 710072

MULTISENSOR INFORMATION FUSION FOR TARGET IDENTIFICATION USING A RADAR SENSOR AND AN INFRARED SENSOR

Hao Chongyang, Tang Wenbin

Electronic and Information Engineering Institute, Northwestern Polytechnical University, Xi'an, 710072

摘要 提出了一种利用目标的雷达和红外成像 2 种独立的传感器信息的互补性来构造特征向量的信息融合方法——联合向量空间法，并用对应的自适应信息融合系统进行目标识别。仿真证实比用单传感器的效果明显优越，从而说明了本文方法的有效性。

关键词： 多传感器信息融合 目标识别 特征向量 自适应系统

Abstract： Because the extraction of feature vector using a single sensor from the target is often incomplete, it is useful to take advantage of irrelevant feature vectors which are extracted by using multisensor for enhancing detection possibility and lowering error possibility. The radar sensor and the infrared sensor are two kinds of the most important sensors in modern military.A method of target identification by information fusion is given to construct feature vectors space. It is proved that the new method of target identification which uses a radar sensor and an infrared sensor is better than the old method of target identification which uses a single radar sensor. The simulation experiments are carried out to show the effectiveness of the new method.

Keywords： multisensor informat ion fusion tar get ident ification feature vector self-adaptivesystems

Received 1998-02-06; published 1998-12-25

引用本文:

郝重阳;唐文彬. 雷达和红外成像双传感器信息融合目标识别研究[J]. 航空学报, 1998, 19(6): 87-90.

Hao Chongyang;Tang Wenbin. MULTISENSOR INFORMATION FUSION FOR TARGET IDENTIFICATION USING A RADAR SENSOR AND AN INFRARED SENSOR[J]. Acta Aeronautica et Astronautica Sinica, 1998, 19(6): 87-90.