

Record 1 of 1**Title:** Cooperative Positioning System for Indoor Surveillance Applications**Author(s):** Stancovici, A (Stancovici, Andrei); Micea, MV (Micea, Mihai V.); Cretu, V (Cretu, Vladimir)**Book Group Author(s):** IEEE**Source:** 2016 INTERNATIONAL CONFERENCE ON INDOOR POSITIONING AND INDOOR NAVIGATION (IPIN) **Book Series:** International Conference on Indoor Positioning and Indoor Navigation **Published:** 2016**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 0**Cited Reference Count:** 16**Abstract:** This paper presents basic characteristics of the problem of positioning errors propagation in collaborative multi robot environments. We propose two localization methods to achieve a cooperative positioning system using a collaborative autonomous robotic team for indoor surveillance applications. Based on case study simulation results, we were able to evaluate the error propagation process and to obtain the two-dimensional (2D) localization errors for the two proposed methods: Iterative Least Square (ILS) Localization and Backtracking Particle Filter (BPF) Localization.**Accession Number:** WOS:000390141300004**Language:** English**Document Type:** Proceedings Paper**Conference Title:** International Conference on Indoor Positioning and Indoor Navigation (IPIN)**Conference Date:** OCT 04-07, 2016**Conference Location:** Madrid, SPAIN**Conference Sponsors:** Univ Alcalá, Geintra, Univ Alcalá, Dept Electronica, Ctr Automat & Robot, Consejo Super Investigaciones Cientificas, IEEE, IEEE Geoscience & Remote Sensing Soc, IEEE Instrumentat & Measurement Soc, Univ Extremadura, Grp Investigac Sistemas Sensoriales, IEEE Secc Espana**Author Keywords:** component; Ultrasonic Waves; Line of Sight; Indoor Positioning; Collaborative Robots; Least Squares; Particle Filter**KeyWords Plus:** ROBOTS**Addresses:** [Stancovici, Andrei; Micea, Mihai V.; Cretu, Vladimir] Politehn Univ Timisoara, Dept Comp & Informat Technol, Timisoara, Romania.**Reprint Address:** Stancovici, A (reprint author), Politehn Univ Timisoara, Dept Comp & Informat Technol, Timisoara, Romania.**E-mail Addresses:** stancovici@dsplabs.cs.upt.ro; mihai.micea@cs.upt.ro; vladimir.cretu@cs.upt.ro**Publisher:** IEEE**Publisher Address:** 345 E 47TH ST, NEW YORK, NY 10017 USA**Web of Science Categories:** Computer Science, Artificial Intelligence; Engineering, Electrical & Electronic; Telecommunications**Research Areas:** Computer Science; Engineering; Telecommunications**IDS Number:** BG6EK**ISSN:** 2162-7347**ISBN:** 978-1-5090-2425-4**29-char Source Abbrev.:** INT C INDOOR POSIT**Source Item Page Count:** 7