A Method of Improving the Quality of Solving a Coordinate Problem in Short-Range Radio Engineering Systems

Iryna Svyd, Ivan Obod, Oleksandr Vorgul, Oleksandr Maltsev
dept. of Microprocessor Technologies and Systems
Kharkiv National University of Radio Electronics
Kharkiv, Ukraine
iryna.svyd@nure.ua, ivan.obod@nure.ua, oleksandr.vorgul@nure.ua, aleksandr.maltsev@nure.ua

I. Svyd, I. Obod, O. Vorgul and O. Maltsev, "A Method of Improving the Quality of Solving a Coordinate Problem in Short-Range Radio Engineering Systems," *2022 IEEE 9th International Conference on Problems of Infocommunications, Science and Technology (PIC S&T)*, Kharkiv, Ukraine, 2022, pp. 489-494, doi: 10.1109/PICST57299.2022.10238508.

DOI: 10.1109/PICST57299.2022.10238508

https://ieeexplore.ieee.org/document/10238508

***Abstract*—In the work presented, a comparative assessment of the accuracy of measuring of aerial objects coordinates was carried out based on the gradual transition from angle-range measuring to range-ranging measurements of the aerial objects coordinates due to the implementation of a synchronous information network of existing range-finding radio beacons. It is shown that the use of rangefinder-rangefinder calculations in radio engineering short-range navigation systems allows increasing the accuracy of estimating the coordinates of aerial objects. This also makes it possible to carry out a transitional transition to interference-protected short-range radio systems.**

Keywords—distance measuring equipment (DME); request signals; secondary radar systems; Wide Area Multilateration (WAM).

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