

Advertisement

Need Full-Text
access to IEEE Xplore for your organization?

REQUEST A FREE TRIAL >

Browse Journals & Magazines > IEEE Antennas and Wireless Pr... > Volume: PP Issue: 99

Interference Suppression of ULA Antennas by Phase-only Control Using BAT Algorithm

2

Author(s)

Luyen Van Tong ; Vu Bang Giang Truong

[View All Authors](#)

Abstract

Authors

Figures

References

Citations

Keywords

Metrics

Media

Abstract:

This paper proposes an adaptive BAT algorithm (BA) based beamformer for pattern nulling of half-wave Dipole Uniformly Spaced Linear Array (DULA), of which the imposed nulls have been placed at directions of interferences. This pattern nulling is obtained by controlling only the phase of each array element. In order to verify the proposal, several scenarios of DULA pattern with the pre-set nulls have been performed and compared with those of genetic algorithm (GA) and accelerated particle swarm optimization (APSO) considering mutual coupling. The proposed beamformer has shown the ability to suppress side lobes, to maintain predefined beamwidth, to place precisely single, multiple, and broad nulls at an arbitrary direction of interferences. Furthermore, the beamformer is much faster and more effective in terms of null steering and side lobe suppression in pattern synthesis than GA and APSO based ones.

Published in: IEEE Antennas and Wireless Propagation Letters (Volume: PP, Issue: 99)

Page(s): 1 - 1

DOI: 10.1109/LAWP.2017.2759318

Date of Publication: 05 October 2017

Publisher: IEEE

ISSN Information:

Sponsored by: IEEE Antennas and Propagation Society

Advertisement

IEEE Xplore®

Want to know when an article is cited?
Activate Citation Alerts today.

Download PDF

Download Citations

View References

Email

Print

Request Permissions

Export to Collabratec

Alerts



Abstract

Authors

Figures

References

Citations

Keywords

Back to Top

IEEE Account

- » Change Username/Password
- » Update Address

Purchase Details

- » Payment Options
- » Order History
- » View Purchased Documents

Profile Information

- » Communications Preferences
- » Profession and Education
- » Technical Interests

Need Help?

- » **US & Canada:** +1 800 678 4333
- » **Worldwide:** +1 732 981 0060
- » Contact & Support

