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CORRESPONDENCE

Tel.: +86 10 6455 3845 +86 10 8205 1670

Fax: +86 10 6455 3845 Email: chinacom@china-cic.cn

Add: *China Communications Magazine Co., Ltd.*,

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Call for Papers – Feature Topic, Vol. 17, No. 3, 2020

Enabling Technologies for Agile Maritime Communication Networks

With the rapid development of maritime activities, there has been a growing demand for high data rate and ultra-reliable maritime communications. Traditionally, this is provided by maritime satellites. Besides, shore and island-based base stations (BSs) can be built to extend the coverage of terrestrial networks providing the fourth-generation (4G) or even the fifth-generation (5G) services. Unmanned aerial vehicles (UAVs)-aided and ship-borne BSs can also be exploited to serve as relaying nodes in maritime mesh/ad-hoc networks.

Despite all these approaches, there are still open issues towards the establishment of an agile maritime communication network (MCN). Different from terrestrial communications for urban or suburban coverage, the MCN faces several challenges due to the complicated electromagnetic propagation environment, the limited geometrically available BS sites, and rigorous service demands from mission-critical applications. To address all these challenges, conventional communications and networking theories and methods need to be tailored for maritime application scenarios or new ones should be explored.

The goal of this feature topic is to present the state-of-the-art original research, and the latest advances and innovations in key theories, technologies, and innovative applications for agile MCNs, as well as identify emerging research topics and point out the future research directions. Extended versions of papers published in conferences, symposiums, or workshop proceedings are encouraged for consideration.

SCHEDULE

Submission Deadline: October 5, 2019

Acceptance Notification (1st round): December 1, 2019

Minor Revision Due: December 21, 2019

Final Decision Due: January 5, 2020

Final Manuscript Due: January 11, 2020

Publication Date: March 15, 2020

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Topics include (but not limited to):

- Hybrid satellite-terrestrial network architecture for MCNs
- Internet of Vessels (IoV) and E-Navigation for smart ocean
- VDES-based broadband communications and intelligent shipping
- Coverage performance analysis and enhancing technologies for MCNs
- UAVs-enabled agile coverage for MCNs
- Broadband communication and networking technologies for Maritime Autonomous Surface Ships (MASS)
- Routing methods and protocols for maritime mesh/ad-hoc networks
- Measurements and modeling for maritime channels
- Smart channel estimation and adaptive transmission technologies for MCNs
- Radio resource management and optimization for MCNs
- Interference analysis, alignment, avoidance, and coordination in MCNs
- Quality-of-Service guaranteeing technologies for MCNs
- Analysis and application of cognitive radio technologies in MCNs
- Physical layer security issues in MCNs
- Mobile edge computing for MCNs
- Advanced non-orthogonal multiple access technologies for MCNs
- Artificial intelligence approaches for agile MCNs
- Hardware testbed or field trial for MCNs

SUBMISSION GUIDELINES

This feature topic “Enabling Technologies for Agile Maritime Communication Networks” invites submissions of original, previously unpublished technical papers and visionary articles exploring the architecture, technologies, and applications in agile MCNs. All submissions will be anonymously peer reviewed and will be evaluated on the basis of their technical merits. Potential topics of interest include, but not limited to areas listed above.

Papers should be submitted in two separate .doc files (preferred) or .pdf files: 1) Main Document (including paper title, abstract, key words, and full text); 2) Title page (including paper title, author affiliation, acknowledgement and any other information related with the authors’ identification) through the Manuscript Central. Please register or login at <http://mc03.manuscriptcentral.com/chinacomm>, then go to the author center and follow the instructions there. **Remember to select “Enabling Technologies for Agile Maritime Communication Networks—March Issue 2020” as your manuscript type when submitting;** otherwise, it might be considered as a regular paper.

- an abstract of about 150 words
- 3-8 keywords
- original photographs with high-resolution (300 dpi or greater); eps. ortif. format is preferred; sequentially numbered references.
- sequentially numbered references. The basic reference format is: author name, “article name”, issue name (italic), vol., no., page, month, year. for example: Y. M. Huang, “pervature in wireless heterogeneous...”, IEEE Journal on Selected Areas, vol. 27, no. 5, pp 34-50, May, 2009.
- brief biographies of authors (50-75 words)
- contact information, including email and mailing addresses

Please note that each submission will normally be approximately 4500 words, with no more than 20 mathematical formulas, accomplished by up to 10 figures and/or tables.