The Royal Institute of Navigation (RIN) is a professional body for those concerned with navigation and those interested in the advancement of navigation. The RIN promotes the science of navigation and participates in meetings, other original papers, and reports from Special Interest Groups. The Institute also publishes products which can have the benefit of informed and professional scrutiny and to further education and communication.

Membership

There are nine classes of membership under which individuals or organisations may apply to join the Institute. Details of the various membership categories and current subscriptions are available on the RIN website (Home → Join the RIN / Membership Types http://www.rin.org.uk/general.aspx?ID=59) and from the Membership Secretary (membership@rin.org.uk Tel: +44(0)20 7591 3130 Fax: 44(0)20 7591 3131).

Aims and Objectives

The object of the Institute are to unite in one body those who are concerned with, or who are interested in, navigation and to further its development. Navigation is conceived as applying to locomotion of all kinds and is perceived as encompassing aspects of: command and control, psychology and sociology, operational research, risk analysis, theoretical physics, operation in hostile environments, instrumentation, economics, financial planning and law as well as electronics, astronomy, mathematics, cartography and other subjects traditionally associated with navigation.

The aims of the Institute are to encourage the creation and dissemination of knowledge through research and development, to co-ordinate information from all the disciplines involved, to provide a forum in which new ideas and new products can have the benefit of informed and professional scrutiny, and to further education and communication. The Institute initiates conferences and symposia on specific subjects and has a programme of meetings at which lectures are given and discussed. There are standing Special Interest Groups (SIGs), which keep under constant review pertinent aspects of navigation. The success of these Special Interest Groups is crucially dependent on the active involvement of members.

The SIGs include: Land Navigation and Location Group (LNLK), General Aviation Navigation Group (GAN), History of Air Navigation Group (HANG), Civil and Military Air Group (CMAG), Marine Traffic & Navigation Group (MT&NG), Small Craft Group (SCG), Space Group (Space), Animal Navigation Group (ANG) and Research & Development Group (R&D).

The Institute publishes The Journal of Navigation six times a year. It contains papers which have been presented at meetings, original papers and selected papers and reports from Special Interest Groups. The Institute also publishes Navigation News six times a year which contains a full account of the Institute’s proceedings and activities. This includes Branch News, a record of current navigational work, a diary of events, topical articles, news about Membership and advertising. A great deal of the Institute’s work is international in character and is coordinated with that of similar organisations in other countries.

Committee

The Editorial Board (for administrative matters) consists of the members of the Royal Institute of Navigation’s Technical Committee.

The Journal of Navigation is published six times a year by Cambridge University Press. It contains original papers contributing to the science of navigation, including those presented at the meetings of the Institute. Papers should be submitted via the link http://mc.manuscriptcentral.com/рин.

The Institute’s work is international in character and is coordinated with that of similar organisations in other countries.

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The standing calibration method of MEMS gyro bias for autonomous pedestrian navigation system has been developed to enhance the accuracy and reliability of pedestrian navigation systems. This method is based on the principle of robust calibration and takes into account the dynamic environment in which the pedestrian is operating. The method involves the use of a MEMS gyroscope, which is calibrated using a combination of MEMS sensors and a high-precision terrestrial navigation system. The calibration process involves the measurement of the MEMS gyroscope in a reference environment and then using this information to correct the output of the gyroscope in a real-time environment. The method is designed to be robust against errors in the reference environment and to provide accurate and reliable estimates of the pedestrian's motion. The method is expected to be of great value in applications such as pedestrian navigation systems, where accurate and reliable estimates of the pedestrian's motion are required.