

Bylaws of the Cellular Neural Networks and Memristor Array Computing

Technical Committee of the IEEE Circuits and Systems Society

The goal of the Cellular Neural Networks and Memristor Array Computing (CNN-MAC) Technical Committee is to foster research, development, education and industrial dissemination of knowledge relating to the emerging field of cellular dynamic computers and models, including data processing structures leveraging the disruptive memristor nanotechnologies. CNN (“Cellular Neural/Nonlinear/Nanoscale Network”) computing is used as a generic terms for analog and logic (analogic) stored programmable array computers and models with a core of mainly locally interconnected dynamical systems. MAC (“Memristor Array Computing”) includes theory and applications of in-memory computing and mem-computing paradigms, which are of great appeal for the Internet-of-Things industry, e.g. in the medical and automotive fields. The activities are genuinely multidisciplinary, drawing upon knowledge and expertise from fields such as biology, physics and chemistry, in addition to areas more traditionally associated with the IEEE such as electrical and computer engineering, computer science and information technology.

Membership

1. Membership of the CNN-MAC Technical Committee is open to any IEEE member. Membership is approved by a majority of active members present at any of the Committee's general meetings. Membership is by recommendation and by majority vote of the members present at a meeting. A member is removed from the committee if he/she does not attend three consecutive annual committee meetings.
 2. At any time, the Committee shall have three officers: the Chair, the Secretary and either the Chair-elect or the Past Chair. Both the Chair and the Secretary serve two year terms. The Chair-elect and Past Chair serve one-year terms.
 3. A subset of the members of the committee shall be designated as Regional Representatives, which function as local contact points for information about the Technical Committee and as coordinators of activities within a designated geographical region. Regional Representatives shall be designated each year at ISCAS with no limit on the number of times any member can serve as a Regional Representative.
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Meetings

The annual meeting of the committee will be held at the International Symposium of Circuits and Systems (ISCAS). Other general meetings will be held at the European Conference on Circuit Theory and Design (ECCTD) and at the Workshop on Cellular Nonlinear Networks and their

Applications (CNNA). Any business requiring Committee approval will be transacted at the annual or general meeting, with the exception of the election of officers, which shall take place only at the annual meeting. Outside of the annual and general meetings, the three Officers can, upon a majority vote, undertake unplanned business on behalf of the Committee, provided that these activities do not require formal committee approval and that they be reported to the Committee at the next meeting.

Duties and Election of Officers

Chair

1. The Chair presides over committee meetings and is responsible for all interactions with the CAS Society. With the assistance of the Secretary, he/she is responsible for reporting the activities of the Committee to the CAS Board of Governors on a timely basis. The Chair is also responsible for recommending Associate Editors for the CAS Transactions.
2. The Chair is not directly elected, but assumes the chairmanship immediately after the ISCAS following his/her one year term as Chair-elect. The Chair must be a member of both the Committee and of the Circuits and Systems Society. The Chair serves a two year term.

Past Chair

1. The Past Chair is responsible for organizing any and all CNN-MAC Technical Committee-sponsored special sessions and workshops at ISCAS. He/She is also responsible for assisting the Chair in transacting the business of the committee.
2. The Past Chair is not directly elected, but assumes his/her position immediately after the ISCAS following his/her two year term as Chair. The Past Chair must be a member of both the Committee and of the Circuits and Systems Society. The Past Chair serves a one year term.

Chair-elect

1. The Chair-elect is responsible for organizing any and all CNN-MAC Technical Committee-sponsored special sessions and workshops at ISCAS. He/She is also responsible for assisting the Chair in transacting the business of the committee.
2. The Chair-elect will be elected by majority vote of the members of the Committee present at the annual meeting falling in the first year of the term of the current chair. The Chair-elect must be a member of the Committee and of the Circuits and Systems Society. He/She assumes the Chair-elect position immediately after the ISCAS of his/her election and serves a one-year term. The Chair-elect assumes the chairmanship of the Committee after the ISCAS following his/her one year term.

Secretary

1. The Secretary, who will also act as the Treasurer for the Technical Committee, will record the minutes of the yearly meeting and maintain the roll of the committee. The Secretary will be the contact point for the Committee's nominations for CAS Society awards and for nominating transactions papers in the field of Cellular Nonlinear Networks and Memristor Array Computing for the Best Paper Awards. He/She will report on Committee activities through the IEEE Circuits

and Systems Society Newsletter at least twice a year (following ISCAS in the Summer and prior to ISCAS in the Spring).

2. The Secretary will be elected by the membership of the Committee present at the annual meeting falling in the second year of the term of the current Secretary. He/She will serve for a two -year term commencing immediately after the ISCAS of his/her election. The Secretary must be a member of both the CNN-MAC Technical Committee and the Circuits and Systems Society
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Activities

1. The Committee will be responsible for nominating individuals for the various CAS society Awards, and for nominating deserving papers in the area of Cellular Neural Networks and Memristor Array Computing for each of the CAS Society's Best Paper Awards. Every active Committee member will be solicited by the Secretary to submit potential nominees. The Officers will decide the names to be submitted to the CAS Award Committees from the names submitted by the members.
 2. The Committee will organize a special session and/or workshop on Cellular Neural Networks and Memristor Array Computing at each ISCAS. The Chair-elect or Past Chair will be responsible for organizing this activity at the ISCAS following the annual meeting where he/she assumes his/her position. The Chair is expected to assist in the organization, but final responsibility lies with the Chair-elect or Past Chair.
 3. The Committee will recommend new Associate Editors for the Transactions of the Society in the fields relating to Cellular Neural Networks and Memristor Array Computing to the Editorial Board of the CAS Society. The Committee will accept nominations for these positions and review them at an annual meeting preceeding the term of the incoming editors. The Chair will be responsible for learning when each Editorial Board will be formed and for soliciting nominations from the Committee membership in a timely manner.
 4. The Committee may engage in other activities such as editing a reprint books, the organizing of special issues of an IEEE publication, workshops, conferences, and other publication activities in the area of Cellular Neural Networks and Memristor Array Computing.
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Amendments

Future amendments to these bylaws will be by a majority vote from the Committee members present at an annual meeting or from majority of the members at large through mail. Any bylaw amendment can be introduced at the Committee meeting, provided that at least one of the three Officers has been notified at least one month prior to the Committee meeting. Approval by the three Officers is not necessary, but notification is required. An approved amendment will take effect the day following the conclusion of the annual meeting where it was approved.

Motions to Amend the Charter have special conditions to be consistent with CASS and IEEE rules. The conditions for such ballots at a meeting and by internet ballot differ

1. Internet Ballot: voting by a minimum of one half of the TC members is a valid ballot; a two-thirds majority is required to pass the Motion
 2. Ballot at TC Meeting: a Special Quorum of the Ceiling function of one-half of the TC members at the meeting is required; a two-thirds majority is required to pass the Motion
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Last updated: 24 April 2021