

American Rock Mechanics Association's Technical Awards Selection Committee

Awards Criteria and Operating Procedures

Revised: 23 October 2024

1. ARMA technical awards

ARMA seeks to recognize outstanding contributions and careers of its members in rock mechanics and rock engineering that are of benefit to the geoengineering community. It does so in part by naming recipients of the following awards:

- a. ARMA Fundamental Research Award
- b. ARMA Applied Research Award
- c. ARMA Case History Award
- d. Dr. N.G.W. Cook Ph.D. Dissertation Award
- e. ARMA M.S. Thesis Award
- f. ARMA Outstanding Contributions Award

This document concerns selection criteria and procedures for these six awards. Procedures for the ARMA Future Leader Selection, ARMA Fellows Selection, ARMA Distinguished Service Awards, and Symposium awards for best paper/poster are addressed elsewhere.

Every year, awards may or may not be made, with the Awards Committee determining if qualifying applications have been received.

2. Award selection criteria

Award recipients must have been members of ARMA during the application period; for multi-authored contributions, only the first (principal) author must have been a member of ARMA during the application period. It is not necessary for those writing letters in support of applications to be member(s) of ARMA.

Selection criteria specific to every award are as follows:

- a. **ARMA Fundamental Research Award** – This award shall recognize an original contribution that advances the theoretical or fundamental aspects of rock mechanics and rock engineering. The contribution should provide new concepts that may alter the direction of rock mechanics science in the near future. The contribution must be published within the past three (3) years at the time of application in a journal paper and/or an ARMA conference paper. The awards committee shall consider the following criteria, which must be specifically addressed in the application package / document:
 - i. Basis of contribution – Scholarly and technical merit of the work; evidence of innovative problem solving; quality of explanation of new concept.
 - ii. Potential impact of the contribution – Possibility for practical applications; value of potential application.

- b. **ARMA Applied Research Award** – This award shall recognize a practical contribution that applies rock mechanics and rock engineering principles toward innovative, safer, more economic or environmentally sound solutions in engineering design. The contribution should have immediate value to the practicing rock mechanics professional. The contribution must be published within the past three (3) years at the time of application in a journal paper and/or an ARMA conference paper. The awards committee shall consider the following criteria, which must be specifically addressed in the application package / document:
 - i. Basis for contribution – Evidence of innovative problem solving; difficulty of challenges overcome; merit of rock mechanics and rock engineering principles underlying the innovation; elegance and uniqueness of solution.
 - ii. Practical value of contribution – Value in terms of safety, economics or environment; significance of practical application; applicability to other practical problems; value toward other practical solutions.

- c. **ARMA Case History Award** – This award shall recognize a practical contribution from rock mechanics professionals in industry who apply sound rock mechanics and rock engineering principles toward the solution of a specific engineering problem. The contribution must demonstrate immediate value to industry. If the work has not been published in a journal and/or ARMA conference paper, a project report or similar documentation should be provided. The work shall have been completed and/or published within the past three (3) years at the time of application. The awards committee shall consider the following criteria, which must be specifically addressed in the nomination package / document:
- i. Basis for contribution – Evidence of innovative problem solving; difficulty of challenges overcome; merit of rock mechanics and rock engineering principles underlying the innovation; elegance and uniqueness of solution.
 - ii. Practical value of contribution – Immediate value in terms of safety, economics or environment; significance of the solution; applicability to other practical problems; value toward other practical solutions.
- d. **Dr. N.G.W. Cook Ph.D. Dissertation Award** – This award shall be for an outstanding doctoral dissertation in rock mechanics or rock engineering. Consideration is limited to dissertations corresponding to Ph.D. degrees awarded within two (2) years prior to the Symposium at which the award will be announced. At the request of the awardee, the recipient of the Dr. N.G.W. Cook Ph.D. Dissertation Award may also be nominated for the ISRM Rocha Medal; therefore, selection criteria similar to those of the Rocha Medal are applied. The awards committee shall consider the following criteria and weightings, which must be specifically addressed in the application package / document:
- i. Advancement of state-of-the-art (35%) – Extent and quality of new work; difficulty of problems and extent to which a solution is reached.

- ii. Appreciation of state-of-the-art (20%) – Quality of literature review and bibliography; awareness of pertinent previous research; ability to convey concisely the state-of-the-art, and insight, etc.
 - iii. Practical application and usefulness (35%) – Benefit to humankind in short and medium term, particularly in applied rock engineering, e.g. civil, mining and petroleum engineering; avoidance of natural hazards, economies and improved safety in construction, etc.
 - iv. Quality of presentation (10%) – Format, use of headings, style, clarity, clarity of introduction and conclusions, etc.
- e. **ARMA M.S. Thesis Award** – This award shall be for an outstanding Masters-level thesis in rock mechanics or rock engineering. Consideration is limited to dissertations corresponding to M.S. degrees awarded within two (2) years prior to the Symposium at which the award will be announced. This award seeks to encourage promising young professionals to continue their development in rock mechanics or rock engineering. Same selection criteria to those for the Ph.D. thesis will apply.
- f. **ARMA Outstanding Contributions Award** – This award shall recognize an individual whose career achievements have provided outstanding contributions to the profession of rock mechanics and rock engineering. At the request of the awardee, the recipient may be nominated for the ISRM Muller Award. The awards committee shall consider the following criteria, which should be specifically addressed in the application package / document:
- i. Theoretical contributions – Originality, depth and difficulty; quality of explanations; significance.
 - ii. Applied contributions – Elegance of practical solutions; uniqueness of designs; value in safety, economics or environment.

- iii. Leadership in the profession – Significance of role in direction of rock mechanics and rock engineering; influence on other professionals.
- iv. Service to the profession – Organizational roles in the rock mechanics and rock engineering community.

3. Nature of the awards

- a. The Rock Mechanics Research, Applied Rock Mechanics Research, and Case History Awards shall be award plaques or certificates naming the recipients, the title of their contribution and its reference.
- b. The Dr. N.G.W. Cook Ph.D. Dissertation and M.S. Thesis in Rock Mechanics Awards shall be an award plaque or certificate naming the recipients, the title of their work, and his/her University. ARMA, at its discretion, may pay for the travel and registration fee of the prize winners to the Rock Mechanics symposium at which the awards are presented. ARMA, at its discretion, may encourage the awards recipients to publish and present their work at an ARMA conference.
- c. Other awards shall be an award plaque or certificate naming the recipient and award title. ARMA, at its discretion, may encourage the award recipient to present a special lecture on his/her work at an ARMA conference.

4. Applications

The awards committee will consider applications directly from the potential awardees. It is strongly encouraged to reach out to deserving colleagues to encourage them to apply and to offer a support letter. Every award application must present the following information:

- a. Award category
- b. Name, affiliation, and contact information for the applicant.
- c. Abstract of the contribution, written by the applicant (up to 250 words).

- d. Supporting letter addressing the significance of the contribution, written by either the applicant or a colleague familiar with the nominated work (up to 500 words for all categories except Outstanding Contributions, for which the recommendation may be up to 1000 words). The letter writer should explain the significance in terms of the award selection criteria by specifically addressing every evaluation criterion in a separate section.
- e. Electronic version of the nominated work.
- f. Evidence of degree completion (only for Cook Ph.D. Dissertation Award and MS Thesis Award).
- g. For the Outstanding Contributions to Rock Mechanics Award only, a full curriculum vitae that includes a list of the publications is required.

No members of the Awards Selection Committee shall participate in the selection process for an award category if they are related to or have a close professional, academic or supervisory connection with one of the candidates in that award category. If a thesis or published contribution is submitted causing such conflict of interest (COI), the person concerned is to bring this conflict to the attention of the awards committee chair, who will take appropriate action and report the COI to the ARMA Board.

No member of the award selection committee can be a recipient of an award, or can take part in the selection process, if they have written a supporting letter for one of the applicants.

Those who have a student under consideration for the Cook Ph.D. Dissertation Award shall not be members of the award selection committee in any capacity.

In addition, if the Chair has a COI with any of the applications, a new Chair, who is free of COI, must be selected and approved by the ARMA Board. All potential conflicts of interest shall be noted in the award committee report to the ARMA Board.

The ARMA Board is also subject to the ARMA COI policy and will not be involved in the selection of any of the above awards other than through governance oversight and ratification of the awards. ARMA Board members are not eligible to receive awards while they serve. No current ARMA Board member shall write a reference or recommendation letter for any award. Colleagues, students, postdocs, and mentees of current ARMA Board members are eligible for all awards, but supporting letters must not be provided by an ARMA Board member.

5. Selection committee and process

An awards selection committee consisting of ARMA members in good standing, selected by the committee chair and approved by the ARMA Board of Directors, shall be formed at every regular annual meeting of the Board. The committee chair will be appointed by the Board of Directors and shall serve as chair for no more than two years. Every new awards selection committee will attempt to preserve no more than 2/3 of its membership from one year to the next, so that the committee maintains continuity while committee members shall serve no more than three consecutive years (with the exception of the committee chair who may serve up to four consecutive years). Attempts shall be made to include:

- At least one previous award recipient and/or ARMA fellow.
- Diversity of institutional representation, including national laboratories, industry, and academia.
- Diversity of discipline, including petroleum, civil, mining, and interdisciplinary.
- All members of the committee shall be recognized leaders in their fields.
- The composition of the committee shall reflect equitable opportunity and all members shall review and agree to ARMA's Commitment to Diversity, Equity, and Inclusion.

The committee shall not include more than one individual from any given institution.

The Executive Director of ARMA shall distribute full details of nominations in every award category to every committee member within two weeks after closing of nominations.

The awards committee shall 1) review the nominees, 2) request additional information as needed, 3) compare nominations to selection criteria, 4) recommend the names of the preferred award recipients to the full ARMA Board. The awards committee shall make its award recommendations to the ARMA Board for ratification within two months after closing of nominations.

Upon review of the award committee recommendations, the ARMA Board shall ratify the individual award selections. In the event that an award selection is not ratified, the ARMA Board may, at its discretion, request another recommendation from the Awards Selection Committee or else no award will be made in that specific category for that award cycle. The ARMA Board shall ratify or decline to ratify initially recommended award recipients within three months after closing of nominations and shall ratify all recommendations not later than two months prior to the ARMA Symposium.

6. Confidentiality

The awards committee report and recommendations, including identity of all nominees, shall remain confidential. The identity of award recipients shall remain confidential until approval is given by the ARMA Board and the award recipients have been notified.

7. Conferring the awards

The award recipients shall be notified immediately after ARMA Board approval, which is about three months after closing of nominations and three months before the next ARMA conference. The President of ARMA shall confer the awards at that ARMA conference.