

# RO-MAN Peer Review Process and Guidelines

## Review Process Basics

### *Roles*

RO-MAN review process will involve program chairs, associate editors, and external reviewers.

The responsibilities of each role is described below:

1. *Program Chairs*: The program chairs are responsible for managing and overseeing the entire peer review process for the full-paper submission to main conference track, including the recruiting of associate editors, assignment of papers to associate editors, making the final accept/reject decisions based on the recommendation of the associate editors, and forming the technical program of the conference.  
Each associate editor should be response to a set of keywords listed in the Call For Papers (CFP) of the year. The entire group of associate editors should cover the all keywords. If the submitted paper is out of associate editors' ranges, the program chair has to play the associate editor's role. The program chairs, in consultation with the Steering Committee and the General Chair, determine the acceptance rate of that year's conference considering the number of submissions, venue capacity, and program planning constraints. The targeted acceptance ratio is 60-70 %.
2. *Associate Editors (AE)*: The AEs are responsible for serving as the "primary" reviewer for a subset of the submissions to the conference, including reading the papers they are handling, recruiting reviewers from their network and elsewhere that are among the most qualified to review papers assigned to them, facilitating discussion among the reviewers, writing a meta-review summarizing the reviewer evaluations, and serving as "secondary" reviewer for a small number of borderline papers. As a rule of thumb, no AE should handle more than 5 submissions.
3. *External Reviewers*: External reviewers are responsible for evaluating the scientific merit of submissions that they are asked to review, including reading the papers that are assigned to them, writing a detailed review, and engaging in discussion that the AE may initiate. As a rule of thumb, no external reviewer should be asked to review more than 3 submissions.

### *Review Blinding & Confidentiality*

RO-MAN follows a single-blinded peer-review process, i.e., the author identities are not blinded to the reviewers, but reviewer identities are blinded to the authors. However, author submissions

and reviews are both considered *confidential*, and reviewers should not share or disclose information about papers to third parties, and authors should not share or disclose external reviewer comments.

### *Plagiarism*

RO-MAN will adapt IEEE's guidelines for plagiarism. Below is the paragraph on author responsibilities regarding plagiarism from the IEEE PSPB Operations Manual:

IEEE defines plagiarism as *the use of someone else's prior ideas, processes, results, or words without explicitly acknowledging the original author and source*. Plagiarism in any form is unacceptable and is considered a serious breach of professional conduct, with potentially severe ethical and legal consequences. Section 8.2.4.D provides detailed guidelines for a) handling allegations of plagiarism, b) applying appropriate corrective actions when findings of plagiarism have been reached, and c) referencing previously published material.

PaperCept includes running all submissions through the iThenticate service to calculate a plagiarism similarity score, which will be provided to AEs (but not to reviewers).

The iThenticate results for the submission include a “similarity score” and a detailed report. AEs should review the reports for each paper they are handling, paying particular attention to scores of **40 or higher**. If AEs conclude that a submission might involve plagiarism based on their review of the iThenticate analysis, their knowledge of previously published work, or reviewers alerting the AE of potential cases of plagiarism. In these cases, AEs should follow the procedure below:

1. For papers that present potential cases of plagiarism, e.g., an iThenticate similarity score of 40 and above or another reason to suspect plagiarism, review the iThenticate report to determine the nature of the similarity with prior publications;
2. The AE should alert program chairs by sending them a message to ensure their awareness of the case.

### *Double Submissions*

RO-MAN will follow a strict double-submission policy, desk-rejecting any submissions that appear identical to submissions that are currently under consideration at another peer-reviewed, archived venue. An AE or a reviewer may identify such cases through their involvement in the peer-review process of another venue. In such cases, the reviewers should alert AEs and AEs

should alert program chairs of the case for a determination. Submissions that are identical will be immediately rejected; whereas submissions with partial overlap with another submission to RO-MAN or another venue will be evaluated on a case-by-case basis. The program chairs will work with the AE handling the paper to make this evaluation.

### *Conflicts of Interest*

Program chairs, AEs, and reviewers should not be in a position to affect the evaluation of papers with which they have a conflict of interest (CoI). Relationships that cause a CoI include the following:

- Employment at the same institution or company
- Paper co-authorship with authors in the last 24 months
- Active collaboration on a project or serving as co-investigators on a grant
- Graduate advisee/advisor relationship

If, during the paper assignment or review phases, AEs or external reviewers notice a CoI with a paper, they must immediately alert the program chairs. The papers with which the program chairs have CoIs will be handled by the general chairs of the conference.

## **Review Process Phases**

The review process for RO-MAN is broken down into six phases that are outlined below.

### *Phase 1. Associate Editor Assignment*

The authors are asked to declare the most closed keyword(s) listed in CFP when they are making their submissions. Based on the declared keywords, the program chair assigns the paper to the corresponding associate editor. If the corresponding associate editor has already 5 submissions to be handled, the program chair has to recruit a new associate editor in the research field.

### *Phase 2. External Reviewer Assignment*

The second phase of the review process involves AEs assigning external reviewers to each submission they are handling. AEs should identify *three* (no less to ensure rigorous review, no more to avoid community fatigue) qualified, trusted external reviewers and securing commitment from them for preparing high-quality evaluations by the review deadline and provide reviewers with information on the review process, milestones, and deadlines.

***Finding Reviewers:*** In identifying reviewers, the AEs can rely on their personal networks, work cited by the authors, and senior researchers who have done work on the topic in recent years. Finding the best fit is key. A recommended method is to search on [Google Scholar](#) using

keywords, limit the time range to the last few years, and identify the senior author on highly-cited papers (as seen in the screenshot below). The reviewer database in the PaperCept system should be used as a last resort, as keyword-based matching usually results in poor reviewer assignment.

***Inviting Reviewers:*** To invite and get commitments from reviewers, AEs should send a personal email to the reviewers.

Personal emails that provides the reviewer with a brief overview of the paper and why you think he/she would be the best person to review this paper works best to get commitments. Below is a sample review request email. Once the reviewer agrees to help, the official email can be sent with the link to the PaperCept system as well as a copy of the paper. You can send reviewers the external reviewer's guideline.

Re: RO-MAN paper review request

Dear <First-Name>,

I am wondering if you would be available and interested in reviewing a RO-MAN paper that explores the effects of physical touch by a robot on user experience in home healthcare scenarios. I thought that you would be an excellent reviewer for this paper, as the authors build on and cite the RO-MAN XXXX paper you co-authored on parameters of human-robot physical interaction, and would greatly appreciate your help if you would be available. The review deadline is midnight PST on XXX XX, 20XX, and review guidelines can be found at <http://bit.ly/roman16-ER-guide>. Thank you for considering this request.

Best regards,

<Your-Name>

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<Paper-Title>

<Abstract>

### *Phase 3. External Review*

In the next phase of the review process, external reviewers will complete their evaluations of the papers and submit their reviews into PaperCept by the deadline. AEs are responsible for ensuring the timely completion of all reviews, if necessary, obtaining emergency reviews, and

checking review quality and, if necessary, seeking further input or improvements from reviewers. Additionally, AEs can initiate discussion among reviewers in this phase, although, because reviews may not be submitted by the review deadline, the majority of discussions are expected to take place during the primary review period.

During the external review phase, AEs should plan on communicating review guidelines to the external reviewers, sending them reminders regarding the review deadline, and thanking them for their service and time after this phase. The two most important aspects of reviews are (1) the numerical overall assessment of the quality of the submission and (2) comments provided for the authors. The numeric evaluation involves a scale from five (“Definitely accept”) to one (“Reject (with explanation)”) with half-point increments as shown below.

Grade	Quality assessment	Recommended action
A/5.0	Award candidate	Definitely accept
B+/4.5	Journal material	Accept
B/4.0	Solid conference paper	Accept
B–/3.5	Fair conference paper	Accept if possible
C/3.0	Controversial/amendable	Accept with discretion
C–/2.5	Marginal	Last resort
D/2.0	Substandard	Unacceptable
U/1.0	Unsuitable: previously published, no audience, etc.	Reject with explanation

The textual comments should focus on evaluating the technical quality of the submission and the significance of its contributions to the field of human-robot interactive communication and provide concrete and informative comments for the AE and constructive and actionable for the authors. Below is a suggested structure for a “good” review.

*Summary* — The review should start with a brief summary of the work presented in the paper and outline its main findings and potential contributions to human-robot interactive communication.

*Strengths and Weaknesses* — The review should list the strengths and weaknesses of the paper in brief paragraphs or a bulleted list form. Most reviews list three key strengths and three key weaknesses.

*Detailed Comments* — This section is the main part of the review. It will expand on the strengths and weaknesses that are listed in the previous section. The reviewers should use this section to discuss the intellectual contributions of the paper, make detailed recommendations on design, implementation, and evaluation, provide pointers to relevant work that the paper does not mention, and point to future directions that might benefit the authors' research program.

Reviewers should strive to be as constructive as possible in their comments and provide authors with actionable suggestions. For instance, if the presented work or the presentation of the work could be improved in any way, a breakdown of what improvements could be made would be most helpful to the authors. If the reviewer thinks that key related work is missing in the paper, the review should include pointers to this work (e.g., links or citation information). If the presentation of the work lacks clarity, the review should posit specific questions that the authors should seek to answer in the paper.

A key point that the reviewers should consider is whether the weaknesses they are highlighting are addressable in a short timeframe (i.e., until camera-ready papers are due). If the work has weaknesses that require significant new data collection and analysis or major restructuring of the paper, the reviewer should not consider these issues addressable. Weaknesses that require improvements in the clarity of the paper or reframing of aspects of the paper should be considered addressable.

*Suggestions for Improvement* — The review should provide authors with a forward-looking summary of the changes they can make in future iterations of the work or future revision of their paper, including changes that should be made to the camera-ready version of the paper, if the paper is accepted. This section could be made up of a bulleted list or short paragraphs that list the changes the reviewers think are important to improve the work.

*Recommendation* — The review should conclude with a brief qualitative statement of whether or not the reviewer recommends including the paper in this year's technical program. This recommendation is extremely important in interpreting the numeric evaluation, particularly for borderline cases. Recommendations such as "I believe that this paper makes a significant contribution to human-robot interactive communication and should be included in this year's technical program," "While the paper has some weaknesses, it could be included in the technical program, as it makes the following contributions: ..., " "Although the paper has some weaknesses, they can be addressed by making the following improvements: ..., " "While the work presented in the paper is promising, it does not seem to be ready for publication due to major weaknesses in ..., " or "The paper does not seem to be appropriate for the topics and goals of the conference and the authors should be encouraged to submit their work elsewhere such as ...." are appropriate.

#### *Phase 4. Primary Review*

In the next phase of the review process, AEs will facilitate discussion among reviewers in PaperCept, particularly when a paper has diverging reviews (e.g., numerical ratings differing by *two points* or greater, write a meta-review for each paper that summarizes the paper's key strengths and weaknesses and the points made by the external reviewers, and make preliminary accept/reject recommendations for papers. During discussion and meta-review, AEs should seek to maintain the confidentiality of reviewers, referring to reviewers with their Reviewer numbers (e.g., "R1") instead of their names. Meta-reviews should not be another review of the paper; they should instead provide the authors with a "big picture" summary of the paper's contributions, strengths, weaknesses, and evaluation by external reviewers. A suggested outline for a meta-review is provided below.

*Summary* — The meta-review should start with a brief summary of the research presented in the paper, outline the potential contributions of the work, and the significance and relevance of the research for the RO-MAN community.

*Strengths and Weaknesses* — This section should be the bulk of the meta-review and outline the key strengths and weaknesses of the research and the presentation of the work in the paper. This outline could be in the form of brief paragraphs or a bulleted-list. Three key strengths and three key weaknesses tend to capture the important points for most papers. These descriptions should cite external reviewers' comments (e.g., "R1 highlighted that...") and involve the meta-reviewer's assessment of these comments. The meta-review can also highlight strengths and weaknesses that are not highlighted by external reviewers.

*Recommendation* — The primary meta-review should draw on the weighing of the paper's strengths and weaknesses to conclude with a concrete recommendation for the Program Chairs. AEs should try to arrive at a concrete "I would like to see this paper at the conference" or "I don't think this paper is ready for publication (yet)" decision.

*Numerical Evaluation* — The verbal recommendation should be reflected this decision in their numerical ratings. The numeric evaluation involves a scale from "5 = Definitely Accept" to "1 = Reject (with explanation)," and AEs should try not to use the mid-point in this scale, "3 = Accept with discretion."

### *Phase 5. Secondary Review*

AEs will be asked to provide a "secondary" evaluation on a small number of borderline papers to bring in a second opinion before making accept/reject decisions for papers. For secondary reviews, AEs will not write a new review; they will instead read the paper, the reviews, the meta-review,

and provide an accept/reject decision and a very brief, one-to-two sentence justification. This step will ensure that papers that received diverging reviews, were submitted to a category with poor fit, or controversial in nature or topic are handled with rigor and care. AEs should not be asked to provide secondary reviews for more than 3 submissions to maintain a light workload.

Borderline papers are identified using the following indicators:

- **Borderline recommendation by AE**, indicated by a primary rating of C (3);
- **Disagreement between external reviewers and the primary reviewer**, indicated by a deviation in AE rating from average reviewer rating by  $\pm 0.5$  (except for papers with primary ratings of B and above);
- **High disagreement among reviewers**, indicated by external reviewer standard deviation of 2 and above.

The process for secondary reviews will involve the following:

- AEs will receive an email with a list of up to 3 papers for secondary review. The email will include links to (1) a PDF copy of and (2) the reviews for each paper.
- After reading the paper and the reviews, the AEs will be asked to provide a binary “accept” and “reject” decision in a Google form along with a confidence score, varying between 1 and 5. The form will also include a text field to provide a one-to-two word justification for the recommendation. This justification will serve as context for the recommendation and will be used by program chair(s) as input to final decisions.

AEs will submit the Google form for each paper for which they are asked to complete secondary reviews. Overall, the secondary review is expected to take approximately 45 minutes for each paper.

### *Phase 6. Paper Decisions*

The final phase of the review process is make accept/reject decisions for all papers. These decisions will take into account the acceptance rate (determined with input from the Steering Committee and general chair and taking program/venue constraints into consideration), the average numerical rating papers have received, and the accept/reject recommendations provided in primary and secondary reviews. Accept/reject decisions will be sent to authors by the paper notification deadline.