Practitioner Submission Guidance & Review Criteria

Abstract review will be organized in EasyChair, using a standard form. There are 5 main criteria, based on the review of research submission proposals. For some of the criteria we need different considerations for practitioner submission proposals. This note provides the review criteria to be used.

For your information, a copy of the Submission Guidance that practitioners may download from our website, is attached as an Annex. This will give you a general idea of what kind of submissions we are looking for.

Each submission will be reviewed by two experts. The reviews will be blind. In case of doubt or (very) different review results, the Track Manager will do a third review to arrive at a final decision.

Remember that it is our aim to assist the authors in achieving a good result. In case a submission is of a relative low quality, our consideration should be: “will there be the potential to arrive at an acceptable or good final submission”.

Also, in case a submission is rather good, we should comment in such a way, that the author(s) are encouraged to improve the submission or even aim for a full paper, that could also be submitted as a journal article.

Evaluation criteria
The submission evaluation is structured in 4 areas + a final overall recommendation. The 4 areas are:

1. Originality of submission
2. Professional quality (for research submissions this area is "Scientific Rigor")
3. Submission clarity
4. Importance to attendees

Each area has a 7 points scale: none - minimal - marginal - fair - high - very high - exceptional.

The overall recommendation has a 5 points scale: definitely don’t accept, probably don’t accept, possibly accept, probably accept, and definitely accept.

1. Originality
The main question for the reviewer: is it a practitioner case, i.e. the application of HF/E principles and methodologies to a real-world setting?

- If not, your score will be non, or minimal.
- In case of a field study, without an intervention, score: marginal
- In case of a task analysis, and (suggested) intervention, of a single workplace (a one person system): fair
- For complex systems (> 1 workplace): fair to high
- If the paper summarizes best practices/lessons learned: score high - exceptional.

Please add comments for the authors justifying the rating.
2. **Professional quality**

The score for professional quality covers both the approach (how did you carry out the project), as well as the actual design result (product, work system, other actual intervention). Some guidance to arrive at a review score is given here.

First, look at the appropriateness of methods. It covers the headers "context", "actions", and "outcomes" as indicated in the Practitioner Submission Guidance. Check whether the following topics are covered:

- Evaluation / Analysis of the work system; choice of method and data processing
- Design of work system (method and result)
- Implementation of work system in practice
- Substantiated Best practices - lessons learned

If one or more of these points are not discussed, the suggested maximum score is "fair".

If appropriate methods for analysis and data processing have been applied, leading to practical design requirements (or intervention requirements), a high score is recommended. A report on best practices and possible feedback to the HF/E-academia: very high - exceptional.

Please add comments for the authors justifying the rating.

3. **Submission clarity**

The suggested structure of the abstract is: Main message, problem, context, actions, outcomes, discussion, conclusion, and references (see template, as well as Practitioners Submission Guidance). Check for:

- Using the recommended structure for the submission
- Clarity of the context; this may require a short introduction in the type of industry or organization, in order to understand what the project is about.
- Many authors tend to write a lengthy introduction (i.e. "... the last decades have shown..."), including lots of references. It is preferred to come straight to the point, i.e. "... this project describes the design of a crane cabin...".
- Easy reading
- Description of project results: did the author succeed to realize project aims, what does the result look like, and cost/benefit considerations (if any).

Please review the author's discussion and conclusions sections about sharing insights with colleagues and researchers at the next review item.

Please add suggestions for the authors to improve submission clarity.

4. **Importance to attendees**

We can distinguish three groups of session attendees: HF/E Professionals, Project owners (managers, engineers, etc.), and Researchers. Authors are asked to summarize project outcomes, best practices, and lessons learned. We suggest a (very) high score, if authors have been able to do so, in such a way that

- HF researchers get feedback on the relevance of their research projects, or suggestions of new research or guidance needed by practitioners
- Project owners can be convinced of the importance of HF/E contributions to (future) investment projects.

Please add comments for the authors justifying the rating.
5. Overall recommendation

Based on the previous 4 evaluation criteria, it shouldn't be difficult to arrive at a final conclusion. Any score of "none" or "minimal", should lead to a "definitely don't accept".

If there are one or more "very high" or "exceptional" scores, we should definitely accept the submission, assuming that low scores on other criteria can be improved (maybe with some assistance).

We may expect (previous experiences), that we get to review some proposals, that do not fit in the Practitioners Track, but otherwise look like good submissions. A "possibly accept" score looks appropriate. Previous experiences also indicate that one author may submit several proposals related to the same project. If you get the feeling (it is a blind review) that this is the case, please communicate this via an internal comment (so we can check). For those also reviewing proposals in other tracks, please be aware of this possibility.

EasyChair will also ask for internal comments. Please use this box to include an internal comment, for example suggesting an alternative track, to the conference organizers/track manager only.
What to include in your submission for IEA2021 Practitioner Track

Practitioners apply Human Factors/Ergonomics (HF/E) principles and methodologies to real-world settings. They apply what has been learned about humans’ physical and cognitive capabilities to system design. They design solutions to help people achieve their goals. They work within constraints – schedule demands, funding allocations, and resource limitations seeking optimal solutions for their end-users and project stakeholders. Practitioners work is conducted in the field rather than a laboratory. The Practitioner Track aims to share insights from real-world HF/E projects.

One way to share insights, best practices, and lessons learned is through case studies.

Since you may not be used to writing a scientific conference paper, we offer some additional assistance. The following is an outline of what to include in a submission. While consideration of all the items below is strongly encouraged, please note that a proposal need not include all of the example items.

If you have any questions regarding a submission, you may contact the Track Manager, Ruud Pikaar (ruud.pikaar@ergos.nl). You may also request example papers from company case study sessions of previous IEA congresses.

Main Message
This is a summary of the contents of your paper.

Briefly describe the approach taken to achieve the expected outcomes of the project.
Answer these questions:
• How was the project identified.
  Was it an investment project (new/extended production system), a health or safety concern, a quality issue, production challenge, product design consideration, etc.?
• What analytical tools and processes did you apply
  E.g. an observational study, contextual analysis, usability test, modeling and simulation, etc.?
• Who participated in the project?
• What outcomes were achieved?
• What conclusions were reached?
NOTE:
If your project was primarily a system or product design, report how you applied human factors design and testing methods and implications for other practitioners.
OR
If your project was primarily focused on applying HF/E to address a knowledge gap in the technology or research base, report your conclusions.
OR
If your project was primarily an applied occupational intervention, report the remediation effect, business issues identified and the benefits achieved.

Context
This section should give an expanded description of why this particular project was undertaken.

• Within which business application or organization was this project/study conducted?
• What was the overall project goal (e.g. build a power plant, develop a manufacturing line)?
• What was the overall investment in the project, and what part of this has been dedicated to HF/E?
• How did HF Professionals participate in the project?
• Estimate the amount of HF/E work, and % of investment that has been influenced directly by HF/E.
Actions
A description of the approach taken to conduct the project.
- What investigation/applied research process was implemented?
- Who participated and what were their roles?
- What investigation strategies, analyses, design methods or tools were used?
- What procedures were followed?
- How was data identified, gathered and analyzed?
- Were measures of productivity, operational efficiency and return on investment (ROI) considered?

Identify any constraints (business, logistical or methodological) and how they affected the project. Consider including information about:
- What contributed to the success of the project (e.g., events, decisions, actions, communications, collaborations, stakeholders, etc.)?
- What were considered the most important measures of success by your project’s stakeholders (e.g., management, stakeholder satisfaction, budget, schedule, quality of results, business impact, design impact, employee satisfaction, etc.)?
- What limitations did you encounter that impacted results (e.g., cost, time, resources, production demands, and methodology, such as data capture, analysis tools and techniques, etc.)? Please note any company proprietary requirements that prevent you from sharing certain aspects of the results.

Outcomes
- Describe the outcome of the project
  E.g., reduced risk exposure, less materials handling, fewer errors, better business processes, identification of a useful and usable system, etc.
- Provide any relevant descriptive statistics or other statistical results. Tables and graphs are often an effective way to summarize and present results.
- What knowledge was gained?

Discussion
Describe what you learned and include recommendations for consideration in future projects.
- What was the impact on existing business operations, technology or technical systems?
- How did you collaborate with others (e.g., engineers, developers, etc.) to incorporate HF/E into the project? For example, why did the project management hire Human Factors Professionals?
- What changes, if any, could this project have on the way stakeholders currently conduct their business (e.g., changes to business processes, procedures, workload, work organization, etc.)?
- What, if anything, needs to be clearly declared as outside the boundaries or charter of this project?
- What is the total estimated cost and estimated benefit of this project, if applicable/available?
- Emphasize the implications and generalizability of your findings or message to other efforts, systems or tools.
- What would you do the same, what would you do differently (e.g. lessons learned regarding this project, and regarding the usability of HF-methods)?
Conclusion

- What recommendations do you have for others conducting similar real-world projects?
- What additional basic or applied research questions were identified by your work?
- What best practices did you identify?
- What is the practical takeaway that others may implement or adapt?

References

Document references included in your paper.