



Practitioner Submission Guidance

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. Practitioner 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.