Sample title for your contribution to the 36th Forum Bauinformatik in Aachen 2025

Jon Doe[1] and F. D. C. Willard[1,2]

[1]Institute of Energy Efficiency and Sustainable Building (E3D), RWTH Aachen University, Aachen, Germany

[2]Chair of Computing in Civil Engineering and Geoinformation Systems and Geodetic Institute (gia), Aachen, Germany

E-mail(s): jon@doe.de, fdc@willard.com

Abstract: (length: max. 200 words). We look forward to receive your contributions for this year's Forum Bauinformatik. Once you your abstract is accepted, you can use this Latex template to hand in your english or german manuscript for the full paper submission. The manuscript and the final version must not exceed eight pages including all the figures and references. Please prepare the final version camera-ready, with figures in the best resolution possible, having figures, tables and citations layouted as shown in the following chapters and without dead hyperlinks. Please, consider that we will not accept submissions that do not follow the official templates. We wish you good success with the writing process!

Keywords: Building information modeling (BIM), design automation, algorithms, energy simulation (min. 1 to max 5)

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1 Introduction

1.1 Introduction subHeading 1

Our template already contains many common packages that you may use for your contribution:
We hope that these packages are sufficient for a short conference contribution, however if you really deem it necessary you may add other packages at the very top of the .tex-file. In any case, please do not use packages that require a third-party interpreter such as python or R (e.g. the minted-package), do not use the glossary-package, do not use the algorithm-package and of course no packages that interfere with the general layout (e.g. for fonts, page margins etc.). Thanks for your help!

1.2 Introduction subHeading 2

To highlight important phrases or words in a continous text section, you can mark single words **fat**, *italic* or underlined.

Table 1: packages included in the current FBI-template

xcolor	babel	listings	graphicx	placeins
subfig	tikz	pgfplots	rotating	mchem
lscale	booktabs	threeparttable	tabu	wrapfig
longtable	colortbl	multirow	multicol	array
floatrow	tabularx	enumitem	url	mathastext
ansmath	amssymb	amsthm	nccmath	siunitx
biblatex	geometry	setspace	tocloft	pifont
hyperref	microtype	csquotes	cleveref	caption
adjustbox	algpseudocode	comment		

1.2.1 Introduction subHeading 1

According to the level of granularity you desire, you can use three levels of hierarchy in the outline of your text.

1.2.2 Introduction subSubHeading 2

Please make sure to have at least two headings per hierarchy level.

1.3 Introduction subHeading 3

Without introducing subsections, it might be useful to use lists in a continous text to outline information. An example is the following:

- You can make a dynamic cross-reference to a labeled section, e.g. to 1
- You may insert custom pagebreak in word by ctrl + enter to arrange the position of headings.

For headings with special characters, please use the command `\texorpdfstring` to convert your latex-code in a string.

2 Citations

2.1 Citation style

Please use the IEEE citation style in your contribution. Add your literature as a bibtex file into literature/references.bib folder and make sure that every reference has a unique identifier. Then, you can cite an author like [1] in the beginning of a sentence, and one [2] or multiple sources at the end of a sentence [2]–[4]. Examples for different types of references can be found in the references section. For any further question on IEEE citation styles please have a look at official guidelines.

2.2 Literature management in Latex

The literature management library in this document class is `biblatex`, using the backend `biber`. In most LaTeX-editors you need to configure additional settings to use `biblatex` with `biber`. `biber` is a standalone LaTeX program that compiles auxiliary files for the placement of references. To make this compilation happen, LaTeX-Editor must be configured to do so. The detailled configuration depends on the editor, for the most frequently used editors here is a discussion: https://texwelt.de/fragen/1909/wie-verwende-ich-biber-in-meinem-editor.

In case this causes too much problems, you can add at the class options at ln 10 `citeStyle=none`. Then, no package is loaded for literature management and you can load another package with custom settings. A frequently used alternative to `biblatex` is the `natbib`-package, even if it is not maintained many. If the problem is likely to be caused by `biber`, the `biblatex`-package can be loaded with the option `backend=bibtex`.

3 Figures, tables, algorithms and equations

3.1 Figures

Figures you ideally add by the float-environment `figure` with the command `\includegraphics`, which supports most vector- and pixel formats, you may have a look at the source code inserting figure 1. For svg-files, you may use the package `svg` and use the command `\includesvg` instead of `\includegraphics`.

Figure 1: The FBI logo

To insert multiple figures below or besides each other, we integrated the package `floatrow` into the document class (see `floatrow` Dokumentation). An exemplary application for a two-column layout is shown by 2 and 3:

Figure 2: A first time the logo of FBI

Figure 3: A second time the logo of FBI

3.2 Algorithms

The code that generated the two FBI-logos is presented as an exemplary algorithm using the `lstlisting`-environment. Be aware that the algorithm-package is not available in our template.

3.3 Tables

Table 2 is exemplarily given, for further explanations you may have a look at the latex-documentation for tables. For facilitation, you may use a graphical table editor to generate a first draft, see e.g. .

3.4 Formulas

You can add equations as e.g. Einsteins famous formula 1. Make sure to explain symbols used in your continous text or by appending a table as in the following example.

$$e = mc^2 \tag{1}$$

with the variables defined as follows:

Algorithm 1: Two figures besides each other.

```
\begin{figure}
    \CommonHeightRow[5.5cm]{%
        \begin{floatrow}[2]
            \ffigbox[\FBwidth]{%
                \caption{caption 1.}%
                \label{fig:my_label_1}%
            }{%
                \includegraphics[height=\CommonHeight]{<filename>}%
            }
            \ffigbox[\FBwidth]{%
                \caption{caption 2.}%
                \label{fig:my_label_2}%
            }{%
                \includegraphics[height=\CommonHeight]{<filename>}%
            }
        \end{floatrow}
    }
\end{figure}
\label{fig: Logos}
```

Table 2: an exemplary table

Col1	Col2	Col2	Col3
1	6	87837	787
2	7	78	5415
3	545	778	7507
4	545	18744	7560
5	88	788	6344

e Energy $[Joule]$

m Mass $[kg]$

c Speed of Light $[m/s]$

4 Special commands

In this document class, we introduced several special commands that might be helpful for you. We summed them up in table 3.

Table 3: Caption

`\nl`	A short version of `\hfill\\`.
`\lquote`	Creates a quote, i.e. an indented text with quotation marks.
`\squote`	Creates a quote in the continous text.

5 Final remarks

Before you hand in your submission, please check the pdf to not exceed 8 pages, to not contain dead hyperlinks and sufficient resolution of the inserted figures. Thank you for your support. We look forward to see you in Aachen this autumn!

Acknowledgements

You can add acknowledgements or funding information in the end of your paper.

References

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[3] R. Diestel, *Graphentheorie* (Springer-Lehrbuch). Berlin and New York: Springer, 1996, ISBN: 9783540609186.

[4] S. Stein, *Eine kleine latex (tex) einführung*, http://latex.hpfsc.de/, Stand: 2014-10-21, 2014.

Appendix

As long as you do not exceed the total number of eight pages allowed, you may add figures, tables and other information in an appendix section.