

# iaria-lite

## An Unofficial IARIA LaTeX Class (Lite Version)

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### Abstract

The `iaria-lite`-class provides a convenient environment for writing IARIA scholarly publications. (The lite version of the class file does not implement IARIA specifications for citation style, because this would require to make presumption about technological stacks like biblatex/biber). The `iaria-lite`-class should be compatible with all latex distributions.

## 1 Installation

The `zip` or `tar.gz` file comes with a `iaria-lite.ins` and a `iaria-lite.dtx` file included which contains the L<sup>A</sup>T<sub>E</sub>X stuff.

To extract the class files call:

```
$ latex iaria-lite.ins
```

This call will extract all L<sup>A</sup>T<sub>E</sub>X specific files to the current directory. You can either use the files for a single cv project or you can integrate the files into your T<sub>E</sub>X installation.

If you just want to use `iaria-lite` for a single curriculum vitae project, the simplest way is just to copy the generated files to the folder of the project.

If you want to integrate `iaria-lite` into your T<sub>E</sub>X installation, create a directory `tex/latex/iaria-lite` beneath your T<sub>E</sub>X installation (e.g. beneath `/usr/share/texmf`) and copy all files from the current directory there. Now call:

```
$ mktexlsr
```

to update the file-cache of L<sup>A</sup>T<sub>E</sub>X.

Hint: The `iaria-lite` distribution contains a sample `docstrip` configuration in `docstrip.cfg` via which files can be distributed automatically to their correct positions inside a L<sup>A</sup>T<sub>E</sub>X installation. Feel free to adapt this file to your environment and afterwards call `latex iaria-lite.ins` to install the package to its right place.

## 2 Templates

For a quick start the `iaria-lite` distribution contains document templates. The templates can be found in the `iaria-lite-example-neumann.zip` file.

```
$ make
```

to build the pdf. The file `porttrait.eps` contains a dummy portrait for the first page of the curriculum vitae.

## 3 Documentclass

`documentclass iaria-lite` This package provides the documentclass `iaria-lite`. The documentclass supports the following options:

- `conference` Passed to `IEEEtran`
- `a4paper` Passed to `IEEEtran`
- `flushend` Activate `flushend` package
- `pbalance` Activate `pbalance` package

## 4 Requirements

We instrument several other  $\text{\LaTeX}$  packages for different purposes, which must be available under your installation.

- `IEEEtran`
- `extdash`
- `flushend`
- `graphicx`
- `hyperref`
- `orcidlink`
- `pbalance`
- `times`
- `url`
- `xcolor`
- `xpatch`

## 5 The Code

```
1 %# Copyright (c) 2023 Christoph P. Neumann,
2
3 %# DISCLAIMER:
4 %# I had to decide whether to hardcode required usage of IEEEtran "conference" option into my
5 %# I decided against it.
6 %# Thus, it is required to use IARIA class like this: \documentclass[conference]{iaria}.
7 %# The iaria class passes all class options (like "conference") to IEEEtran.
8 %# The reasoning: There might be a future use case (speculatively) to pass IEEEtran options
9 %# For now, IARIA requires IEEE "conference" option, only.
10
11 % Declare that this document class file requires at least LaTeX version 2e.
12 \NeedsTeXFormat{LaTeX2e}
13
14 % Provide the name of your document class, the date it was last updated, and a comment about
15 \ProvidesClass{iaria-lite}[2023/01/01 unofficial IARIA-lite conference template]
16
17 % Define marker counter for options (counter are global in latex):
18 \newcounter{iaria@pbalancetracker}
19 \newcounter{iaria@flushendtracker}
20
21 % Declare options:
22 \DeclareOption{onecolumn}{\OptionNotUsed} % IEEE option onecolumn will be ignored
23
24 \DeclareOption{pbalance}{
25   \setcounter{iaria@pbalancetracker}{1}
26   \typeout{iaria class: pbalance option is set.}
27 }
28 \DeclareOption{flushend}{
29   \setcounter{iaria@flushendtracker}{1}
30   \typeout{iaria class: flushend option is set.}
31 }
32
33 % We'll pass any document class options along to the underlying class
34 \DeclareOption*{%
35   \PassOptionsToClass{\CurrentOption}{IEEEtran}% required IEEE options: conference (for IARIA
36 }
37
38 % Now we'll execute any options passed in
39 \ProcessOptions\relax
40
41 % Instead of defining each and every little detail required to create a new document class,
42 % you can base your class on an existing document class.
43 \LoadClass{IEEEtran}
44
45 \RequirePackage{times} % Times New Roman
46
47 \RequirePackage{graphicx}
48 \RequirePackage{xcolor}
49
50 \RequirePackage{url}
51 \RequirePackage{orcidlink}
52 \RequirePackage{hyperref}
```

```

53 \hypersetup{hidelinks,unicode}
54
55 \makeatletter
56 % Diferring from IEEE, IARIA requires non-abbreviated references:
57 \renewcommand{\fnum@figure}{Figure~\thefigure}
58 % Diferring from IEEE, IARIA requires 14 point bold Times New Roman for the title
59 \renewcommand{\title}[1]{\renewcommand{\@title}{\bfseries\Large #1}}
60 % Diferring from IEEE, IARIA requires "Keywords" instead of "Index Terms":
61 \renewcommand\IEEEkeywordsname{Keywords}
62 \makeatother
63
64 \RequirePackage{xpatch}
65 % Diferring from IEEE, IARIA requires a hyphen after "Keywords" instead of an emdash:
66 \xpatchcmd\IEEEkeywords{---}{-}{}{}
67
68 \makeatletter
69 \renewcommand{\IEEEauthorblockN}[1]{%
70 % copied from IEEEtran.cls:
71   \relax\@IEEEauthorblockNstyle% set the default text style
72   \gdef\@IEEEauthorblockXinterlinespace{0pt}% disable strut for spacer row
73   % the \expandafter hides the \cr in conditional tex, see the array.sty docs
74   % for details, probably not needed here as the \cr is in a macro
75   % do a spacer row if needed
76   \if@IEEEprevauthorblockincol\expandafter\@IEEEauthorblockNtopspaceline\fi
77   \global\@IEEEprevauthorblockincoltrue% we now have a block in this column
78   %restore the correct strut value
79   \gdef\@IEEEauthorblockXinterlinespace{\@IEEEauthorblockNinterlinespace}%
80   % input the author names
81   \large
82   #1%
83   % end the row if the user did not already
84   \crrc}
85 \makeatother
86
87 % Balance/level columns at the last page / in bibliography
88 % DISCLAIMER: No solution is a 100%/perfect one!
89 % Mainstream option: pbalance (see https://ctan.org/pkg/pbalance)
90 % BUT: incompatible with arxiv automated process (!)
91 \ifnum\value{iaria@pbalance} = 1
92   \typeout{iaria class: load pbalance package.}
93   \RequirePackage{pbalance}
94 \fi
95 % Flushend => works with arxiv, but major incompatibility with lineno (and, thus, also with m
96 \ifnum\value{iaria@flushend} = 1
97   \typeout{iaria class: load flushend package.}
98   \RequirePackage{flushend}
99 \fi
100
101 % Finally, we'll use \endinput to indicate that LaTeX can stop reading this file. LaTeX will
102 \endinput

```