

## NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

# SCHOOL OF SCIENCES DEPARTMENT OF INFORMATICS AND TELECOMMUNICATIONS

#### **POSTGRADUATE STUDIES**

#### **MASTER THESIS**

**MsC Thesis Template** 

Panayiotis I. Vlantis

Supervisor: Alex Delis, Professor

**ATHENS** 

**JULY 2018** 



## ΕΘΝΙΚΟ ΚΑΙ ΚΑΠΟΔΙΣΤΡΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

#### ΣΧΟΛΗ ΘΕΤΙΚΩΝ ΕΠΙΣΤΗΜΩΝ ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ ΚΑΙ ΤΗΛΕΠΙΚΟΙΝΩΝΙΩΝ

#### ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ

#### ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ

# Πρότυπο για Διπλωματικές Εργασίες

Παναγιώτης Ι. Βλαντής

ΕΠΙΒΛΕΠΩΝ: Αλέξης Δελής, Καθηγητής

**AOHNA** 

ΙΟΥΛΙΟΣ 2018

#### **MASTER THESIS**

MsC Thesis Template

Panayiotis I. Vlantis

**R.N.:** M1387

Supervisor: Alex Delis, Professor

THESIS COMMITEE: Alex Delis, Professor

Maria Roussou, Assistant Professor

#### ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ

MsC Thesis Template

Παναγιώτης Ι. Βλαντής Α.Μ.: Μ1387

ΕΠΙΒΛΕΠΩΝ: Αλέξης Δελής, Καθηγητής

ΕΞΕΤΑΣΤΙΚΗ ΕΠΙΤΡΟΠΗ: Αλέξης Δελής, Καθηγητής

Μαρία Ρούσσου, Επίκουρη Καθηγήτρια

#### **ABSTRACT**

#### English Abstract...

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullam-corper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

**SUBJECT AREA:** Big Data

**KEYWORDS:** big data, latex, thesis, template

#### ΠΕΡΙΛΗΨΗ

#### Περίληψη στα Ελληνικά....

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullam-corper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

**ΘΕΜΑΤΙΚΗ ΠΕΡΙΟΧΗ**: Δεδομένα Υψηλής Κλίμακας

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ: δεδομένα υψηλής κλίμακας, πρότυπο, διπλωματική

# **CONTENTS**

1.	INTRODUCTION	10
1.1	How to do some things	10
1.	1.1 How to work with figures	10
1.	1.2 How to add a table with caption on top	11
1.	1.3 How to add a plot	11
1.2	How to build the pdf	12
APP	PENDICES	13
Δ	THESIS CLASS FILE	13

# **LIST OF TABLES**

Table1:	Example table with caption on top (List of Tables caption)	11	

# **LIST OF FIGURES**

Figure 1:	Example gull photo	10
Figure 2:	Horizontal plot with custom colors	12

#### 1. INTRODUCTION

#### 1.1 How to do some things

#### 1.1.1 How to work with figures

I use Inkscape [1] to create figures in SVG format. I prefer working with SVG images but I would like to use their EPS version in the latex document. I achieve that by saving the SVG image in the figures directory and generate the EPS version using inkscape from command line. inkscape --export-eps=figures/build/myimage.eps figures/myimage.svg

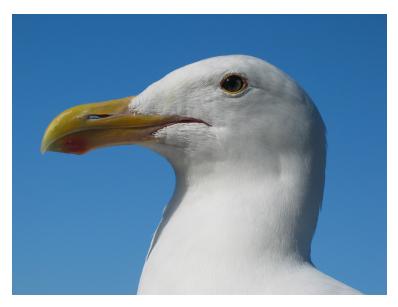


Figure 1: This photograph of a gull was the first Quality image to be promoted to Featured Pictures status in Wikidedia Commons.

Package todonotes provides inline notes like this.

To add file figures/gull.png as a figure:

```
\begin{figure}[h!]
  \centering
  \includegraphics[width=0.6\textwidth]{gull}
  \caption[Example gull photo]{
    This photograph of a gull was the first Quality image to be promoted to Featured Pictures status in Wikidedia Commons.
  }
  \label{fig:gull}
\end{figure}
```

#### 1.1.2 How to add a table with caption on top

Tables are a common feature in academic writing, often used to summarize research results. Mastering the art of table construction in LaTeX is therefore necessary to produce quality papers and with sufficient practice one can print beautiful tables of any kind. [2]

Day	Min Temp	Max Temp	Summary
Monday	11C	22C	A clear day with lots of sunshine. However, the strong breeze will bring down the temperatures.
Tuesday	9C	19C	Cloudy with rain, across many northern regions. Clear spells across most of Scotland and Northern Ireland, but rain reaching the far northwest.
Wednesday	10C	21C	Rain will still linger for the morning. Conditions will improve by early afternoon and continue throughout the evening.

Table 1: Notice how the table's caption is on top of the table and centered.

```
\begin{table}[h!]
  \centering
  \caption[Example table with caption on top (List of Tables caption)]{
   Notice how the table's caption is on top of the table and centered.
  \begin{tabular}{| p{25mm} | p{20mm} | p{20mm} | p{80mm} |}
   \hline
   Day & Min Temp & Max Temp & Summary \\
   \hline
   Monday & 11C & 22C & A clear day... \\
    \hline
   Tuesday & 9C & 19C & Cloudy with rain... \\
    \hline
   Wednesday & 10C & 21C & Rain will still... \\
   \hline
    \end{tabular}
\end{table}
```

#### 1.1.3 How to add a plot

PGFPlots draws high-quality function plots. The user supplies axis labels, legend entries and the plot coordinates for one or more plots and PGFPlots applies axis scaling, computes any logarithms and axis ticks and draws the plots, supporting line plots, scatter plots, piecewise constant plots, bar plots, area plots, mesh and surface plots and some more [3]. Examples of PGFPlots are available in pgfplots.sourceforge.net/gallery.html

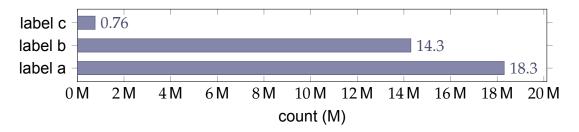


Figure 2: This is a horizontal plot with custom colors. More examples are available in pgfplots.sourceforge.net/gallery.html

## 1.2 How to build the pdf

Latexmk is used to build the pdf instead of calling xelatex directly. Latexmk is a perl script for running LaTeX the correct number of times to resolve cross references, etc; it also runs auxiliary programs like bibtex. Checkout the manual of Latexmk: mg.readthedocs.io/latexmk.html. Its configuration resides in the localfile .latexmkrc. There is also a Makefile but it is a wrapper around Latexmk. So either running make all or latexmk builds the pdf.

#### APPENDIX A. THESIS CLASS FILE

#### Minted package is used for code highlighting

```
\NeedsTeXFormat{LaTeX2e}
    \ProvidesClass{thesis}[2018/01/01 v3.391 University of Athens, DI Thesis Class]
   \LoadClass[a4paper,12pt]{report}
3
    % This file has three sections:
5
   % line 11: Package Declarations and configurations
6
   %% line 150: Formatting of Header, Footer, Section Titles, ToC, LoF, LoT
   %% line 260: Formatting of the first 4 Titlepages and next 2 Abstract pages
8
9
10
   %% Page Margins
11
12
    \RequirePackage{geometry}
13
    \geometry{
14
15
      a4paper,
      head=12.5mm,
16
      foot=12.5mm,
17
      bindingoffset=0cm,
18
      left=25mm,
19
      top=32.5mm,
20
21
      right=20mm,
      bottom=32.5mm.
22
23
   % marginpar=25mm
24
   }
25
   % Fonts
26
27
   \RequirePackage{fontspec}
28
   \setmainfont{Arial}
    % \setsansfont[Scale=MatchLowercase]{DejaVu Sans}
30
   \setmonofont[Scale=1]{DejaVu Sans Mono}
31
32
   %% Mathematics
33
34
35
   \RequirePackage{amsmath}
   \RequirePackage{unicode-math} %provides \setmathfont{Asana Math}
36
    \setmathfont{Asana Math}
37
38
   %% Unicode text (XeLaTeX only)
39
40
    \RequirePackage{xltxtra}
41
   \RequirePackage{xunicode}
42
43
   %% Graphics
44
45
    \RequirePackage{graphicx}
46
    \graphicspath{{./figures/}{./figures/build/}}
47
   % Important:
48
    % Notice that SVG is not listed in the declared graphics extensions.
49
50
    % This is becaus eps is prefered over svg and all svg images are converted to
    % eps using Inkscape.
51
   \DeclareGraphicsExtensions{.eps,.eps.gz,.png,.jpg}
52
53
   % Colors
54
55
    \RequirePackage[usenames,dvipsnames,svgnames,table]{xcolor}
56
57
58
   % Todonotes
59
   \RequirePackage[
60
      bordercolor=LightSteelBlue,
      linecolor=LightSteelBlue,
62
```

```
backgroundcolor=AliceBlue,
63
       textsize=footnotesize,
 64
     ]{todonotes}
 66
     %% Hyperlinks
 67
    % example: \href{http://twitter.com/home}{Twitter}
 68
 69
 70
     \RequirePackage{hyperref}
71
     %% Format paragraph spacing
 72
 73
     \RequirePackage{titlesec}
 74
    % spacing: how to read {12pt plus 4pt minus 2pt}
 75
 76
                  12pt is what we would like the spacing to be
                 plus 4pt means that TeX can stretch it by at most 4pt
 77
                 minus 2pt means that TeX can shrink it by at most 2pt
 78
             This is one example of the concept of, 'glue', in TeX
 79
     \titlespacing\paragraph{0pt}{2pt plus 2pt minus 1pt}{12pt}
 80
     %% Sloppy justification.
 82
     % Makes the text justified but dont expect optimal word spacing
 83
 84
    \sloppy
 85
 86
    % Set paragraph spacing
87
    \setlength{\parskip}{6pt}
 88
 89
    % Set paragraph indent
 90
    \setlength{\parindent}{0em}
 91
 92
     %% Embed pdf documents
93
 94
 95
     \RequirePackage[final]{pdfpages}
 96
 97
     %% Code Highlighting
98
     \RequirePackage[outputdir=build]{minted}
99
100
     \setminted[tex]{style=tango}
101
    %% Appendix
102
103
     \RequirePackage{appendix}
104
105
    %% Cite
106
107
108
     \RequirePackage{cite}
109
     %% Figure and Table captions
110
111
     \ReguirePackage[
112
       font=footnotesize,
113
       labelfont=bf,
114
115
       textfont=bf.
       tableposition=top,
116
       centerlast
117
     ]{caption}
118
119
     %% Format Headers and footers
120
121
     \RequirePackage{fancyhdr}
122
123
     %% Inline lists
124
125
    \RequirePackage{paralist}
126
127
     %% Lorem ipsum generated text
128
129
     \RequirePackage{blindtext}
130
     \RequirePackage{lipsum}
131
```

```
132
     % Plots
133
134
     \RequirePackage{pgfplots}
135
136
     \pgfplotsset{compat=1.13}
137
     % Comment out blocks of latex text
138
139
     \RequirePackage{comment}
140
141
     %% Format sectional headings
142
143
144
     \RequirePackage{sectsty}
145
     %% Formatting ToC
146
147
     \RequirePackage{tocloft}
148
149
150
151
     %% Formatting of Header, Footer, Section Titles, ToC, LoF, LoT
152
153
154
     %% Configure header and footer
155
156
     \pagestyle{fancy}
157
158
     \fancyhf{}
     \lfoot{{\scriptsize \AuthorFooter}}
159
     \lhead{{\scriptsize \Header}}
160
     \renewcommand{\headrulewidth}{0pt}
161
     \renewcommand{\footrulewidth}{Opt}
162
163
     \rfoot{\scriptsize \thepage}
     \fancypagestyle{plain} {
  \lfoot{{\scriptsize \AuthorFooter}}
164
165
       \lhead{{\scriptsize \Header}}
166
167
168
169
     \newif\ifappendixstarted
     \appendixstartedfalse
170
171
     \def\@makechapterhead#1{
172
       {\parindent \z@ \centering
173
174
          \ifappendixstarted
            {\large \bfseries \MakeUppercase{\@chapapp} \space \thechapter. \MakeUppercase{#1}}
175
176
          \else
177
            {\large \bfseries \thechapter. \uppercase{#1}}
178
          \par\nobreak
179
          \vskip 20\p@
180
       }
181
     }
182
183
     \sectionfont{\fontsize{13}{15}\selectfont}
184
     \subsectionfont{\fontsize{12}{13}\selectfont}
185
     \renewcommand{\cfttoctitlefont}{\hspace*{\fill}\large\bfseries\MakeUppercase}\renewcommand{\cftaftertoctitle}{\hspace*{\fill}}
186
187
     \renewcommand{\cftlottitlefont}{\hspace*{\fill}\large\bfseries\MakeUppercase}
188
     \verb|\renewcommand{\cftafterlottitle}{\hspace*{\fill}}|
189
     \renewcommand{\cftloftitlefont}{\hspace*{\fill}\large\bfseries\MakeUppercase}
190
     \renewcommand{\cftafterloftitle}{\hspace*{\fill}}
191
192
     \renewcommand{\cftchapaftersnum}{.\MakeUppercase}
     \renewcommand{\cftfigpresnum}{Figure }
193
     \renewcommand{\cftfigaftersnum}{:}
194
     \renewcommand{\cfttabpresnum}{Table}
195
     \renewcommand{\cfttabaftersnum}{:}
196
197
198
     %% This is Bad.
     % It makes chapter headings uppercase
199
200
```

```
% Copy \l@chapter macro from
201
     % http://mirror.utexas.edu/ctan/macros/latex/contrib/tocloft/tocloft.dtx
202
    % just to add the \MakeUppercase directive
203
204
     \renewcommand*{\l@chapter}[2]{
205
       \ifnum \c@tocdepth >\m@ne
206
         \addpenalty{-\@highpenalty}
207
208
         \vskip \cftbeforechapskip
         {\leftskip \cftchapindent\relax
209
          \rightskip \@tocrmarg
210
          \parfillskip -\rightskip
\parindent \cftchapindent\relax\@afterindenttrue
211
212
          \interlinepenalty\@M
213
214
          \leavevmode
          \@tempdima \cftchapnumwidth\relax
215
216
          \let\@cftbsnum \cftchappresnum
          \let\@cftasnum \cftchapaftersnum
217
          \let\@cftasnumb \cftchapaftersnumb
218
          \advance\leftskip \@tempdima \null\nobreak\hskip -\leftskip
219
          {\cftchapfont \MakeUppercase{#1}}\nobreak
220
          \cftchapfillnum{#2}}
221
       \fi
222
    }
223
224
     \renewcommand{\cftsecfont}{\bfseries}
225
226
227
     \cftsetindents{chapter}{0em}{2.4em}
     \cftsetindents{section}{0em}{2.4em}
228
     \cftsetindents{subsection}{1em}{3.1em}
229
     \cftsetindents{table}{0em}{4em}
230
     \cftsetindents{figure}{0em}{5em}
231
     \setlength{\cftparskip}{0.4em}
232
233
     \setlength{\cftbeforechapskip}{2em}
     \setlength{\cftbeforesecskip}{0.3em}
234
235
     \tocloftpagestyle{empty}
236
237
238
     \renewcommand{\cftbeforetoctitleskip}{0em}
     \renewcommand{\cftbeforeloftitleskip}{0em}
239
     \renewcommand{\cftbeforelottitleskip}{0em}
240
241
     % Continuous figure and table numbering
242
243
     \RequirePackage{chngcntr}
     \counterwithout{figure}{chapter}
244
     \counterwithout{table}{chapter}
245
246
     % https://tex.stackexchange.com/questions/93859
247
     \let\oldthebibliography\thebibliography
248
     \let\endoldthebibliography\endthebibliography
249
     \renewenvironment{thebibliography}[1]{
250
       \begin{oldthebibliography}{#1}
251
         \setlength{\itemsep}{1pt}
252
253
         \setlength{\parskip}{1pt}
         \fontsize{10}{10.6}\selectfont
254
    }
255
256
       \end{oldthebibliography}
257
    }
258
259
     % This is not good but it works
260
     \renewcommand\bibname{\large\centerline{REFERENCES}\global\def\bibname{REFERENCES}}}
261
262
263
     99
264
     %%
         Formatting of the first 4 Titlepages
265
     %%
         and next 2 Abstract pages
266
267
268
     \renewcommand{\title}[2]{
269
```

```
\gdef \Title{#1}
\gdef \GreekTitle{#2}
270
271
272
273
     \renewcommand{\author}[4]{
274
       \gdef\Author{#1}
275
       \gdef\GreekAuthor{#2}
276
       \gdef\RegistryNumber{#3}
277
       \gdef\AuthorFooter{#4}
278
279
280
     \renewcommand{\date}[3]{
281
       \gdef\Date{#1}
282
283
       \gdef\GreekDate{#2}
       \gdef\GreekDateWithoutAccent{#3}
284
285
286
     \newcommand{\header}[1]{
287
288
       \gdef\Header{#1}
     }
289
290
     \newcommand{\supervisor}[4]{
291
       \gdef\Supervisor{#1}
292
       \gdef\SupervisorTitle{#2}
293
       \gdef\GreekSupervisor{#3}
294
       \gdef\GreekSupervisorTitle{#4}
295
296
     }
297
298
     \newcommand{\commitee}[8]{
       \gdef\CommiteeA{#1}
299
       \gdef\CommiteeATitle{#2}
300
       \gdef\GreekCommiteeA{#3}
301
302
       \gdef\GreekCommiteeATitle{#4}
       \qdef\CommiteeB{#5}
303
304
       \gdef\CommiteeBTitle{#6}
       \gdef\GreekCommiteeB{#7}
305
       \gdef\GreekCommiteeBTitle{#8}
306
307
     }
308
     \newcommand{\subject}[2]{
309
       \gdef\Subject{#1}
310
       \gdef\GreekSubject{#2}
311
312
313
     \newcommand{\keywords}[2]{
314
315
       \gdef\Keywords{#1}
       \gdef\GreekKeywords{#2}
316
317
318
     \renewcommand{\abstract}[2]{
319
320
       \gdef \Abstract{#1}
       \gdef \GreekAbstract{#2}
321
     }
322
323
     \renewcommand{\maketitle}{
324
325
       \begin{titlepage}
326
         \vspace*{-20mm}
327
328
         \begin{center}
            \includegraphics[height=3.5cm]{figures/logo}
329
330
          \end{center}
         \begin{center}
331
            {\bf \large NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS}
332
333
            \vskip 5mm
            {\bf SCHOOL OF SCIENCES \\
334
              DEPARTMENT OF INFORMATICS AND TELECOMMUNICATIONS
335
336
337
            \vskip 5mm
           {\bf POSTGRADUATE STUDIES}
338
```

```
\vskip 20mm
339
             {\bf MASTER THESIS}
340
341
             \vskip 7mm
             {\bf \fontsize{16pt}{20pt}\selectfont \Title \par}
342
343
             \vskip 10mm
             {\bf \Author}
344
             \vskip 50mm
345
346
             {\bf Supervisor:} {\bf \Supervisor }, \SupervisorTitle
             \vfill
347
             \vskip 15mm
348
349
             {\bf ATHENS}
             \vskip 5mm
350
             {\bf \MakeUppercase \Date}
351
352
             \vskip 20mm
          \end{center}
353
354
        \end{titlepage}
355
        \begin{titlepage}
356
357
          \vspace*{-20mm}
          \begin{center}
358
             \includegraphics[height=3.5cm]{figures/logo}
359
          \end{center}
360
          \begin{center}
361
             {\bf \large E0NIKO KAI ΚΑΠΟΔΙΣΤΡΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ Α0ΗΝΩΝ}
362
363
             \vskip 5mm
             \{\bf\ \dot{\Sigma}XO\Lambda H\ \thetaETIK\Omega N\ E\PiI\Sigma THM\Omega N\ \ \ \ TMHMA\ \Pi\Lambda HPO \PhiOPIKH\Sigma\ KAI\ TH\Lambda E\PiIKOIN \OmegaNI \OmegaN\}
364
365
             \vskip 5mm
             {\bf ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ}
366
367
             \vskip 20mm
             \{\bf\ \Delta I\Pi \Lambda \Omega MATIKH\ EP\Gamma A\Sigma IA\}
368
             \vskip 7mm
369
             {\bf \fontsize{16pt}{22pt}\selectfont \GreekTitle \par}
370
371
             \vskip 10mm
             {\bf \GreekAuthor}
372
373
             \vskip 50mm
             {\bf EΠΙΒΛΕΠΩΝ:} {\bf \GreekSupervisor }, \GreekSupervisorTitle \\
374
             \vfill
375
376
             \vskip 15mm
             {\bf AOHNA}
377
             \vskip 5mm
378
             {\bf \MakeUppercase \GreekDateWithoutAccent}
379
             \vskip 20mm
380
381
          \end{center}
        \end{titlepage}
382
383
384
        \begin{titlepage}
             \vspace*{-10mm}
385
             \begin{center}
386
               {\bf MASTER THESIS}
387
               \vskip 10mm
388
389
               \Title
390
               \vskip 10mm
               {\bf \Author}\par
391
               {\bf R.N.:} \RegistryNumber
392
               \vskip 40mm
393
               {\bf Supervisor:} {\bf \Supervisor }, \SupervisorTitle
394
               \vskip 50mm
395
               \begin{tabular}{ll}
396
                  {\bf THESIS COMMITEE:}
397
                    & {\bf \CommiteeA}, \CommiteeATitle \\ & {\bf \CommiteeB}, \CommiteeBTitle
398
399
400
               \end{tabular}
               \vfill
401
               {\Date}
402
             \end{center}
403
        \end{titlepage}
404
405
        \begin{titlepage}
406
             \vspace*{-10mm}
407
```

```
\begin{center}
408
               {\bf ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ}
409
410
               \vskip 10mm
               \Title
411
               \vskip 10mm
412
               {\bf \GreekAuthor}\par
413
               {\bf A.M.:} \RegistryNumber
414
415
               \vskip 40mm
               {\bf EΠΙΒΛΕΠΩΝ:} {\bf \GreekSupervisor }, \GreekSupervisorTitle
416
               \vskip 50mm
417
418
               \begin{tabular}{ll}
                 {\bf EEETASTIKH ENITPONH:}
419
                   & {\bf \GreekCommiteeA}, \GreekCommiteeATitle \\ & {\bf \GreekCommiteeB}, \GreekCommiteeBTitle
420
421
               \end{tabular}
422
423
               \vfill
               {\GreekDate}
424
            \end{center}
425
        \end{titlepage}
426
427
        \begin{titlepage}
428
          \begin{center}
429
            {\bf \fontsize{14pt}{14pt}\selectfont ABSTRACT \par}
430
431
          \end{center}
          \vspace*{10mm}
432
          \Abstract
433
434
          \vfill
          \begin{tabular}{p{5cm}p{10cm}}
435
            {\bf SUBJECT AREA:} & \Subject \\[3mm] 
{\bf KEYWORDS:} & \Keywords
436
437
          \end{tabular}
438
        \end{titlepage}
439
440
        \begin{titlepage}
441
442
          \begin{center}
             {\bf \fontsize{14pt}{14pt}\selectfont ΠΕΡΙΛΗΨΗ \par}
443
          \end{center}
444
445
          \vspace*{10mm}
          \GreekAbstract
446
447
          \vfill
          \begin{tabular}{p{5cm}p{10cm}}
448
            {\bf 0EMATIKH NEPIOXH:} & \GreekSubject \\[3mm] {\bf ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ:} & \GreekKeywords
449
             {\bf ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ:}
450
          \end{tabular}
451
        \end{titlepage}
452
453
       \setcounter{page}{7}
454
455
        \global\let\title\relax
456
        \global\let\author\relax
457
458
        \global\let\date\relax
        \global\let\supervisor\relax
459
        \global\let\subject\relax
460
461
        \global\let\keywords\relax
        \global\let\maketitle\relax
462
        \global\let\abstract\relax
463
        \global\let\header\relax
464
     } % end maketitle
465
```

## **REFERENCES**

- [1] Inkscape, "Draw Freely." [Online]. Available: https://inkscape.org/en/
- [2] WIKIBOOKS, "Latex tables." [Online]. Available: https://en.wikibooks.org/wiki/LaTeX/Tables
- [3] PGFPlots, "A LaTeX Package to create normal/logarithmic plots in two and three dimensions." [Online]. Available: http://pgfplots.sourceforge.net