



Technical University of Sofia
Faculty of Telecommunications

Department "Technology and management of communication systems"

Ognyan Chikov

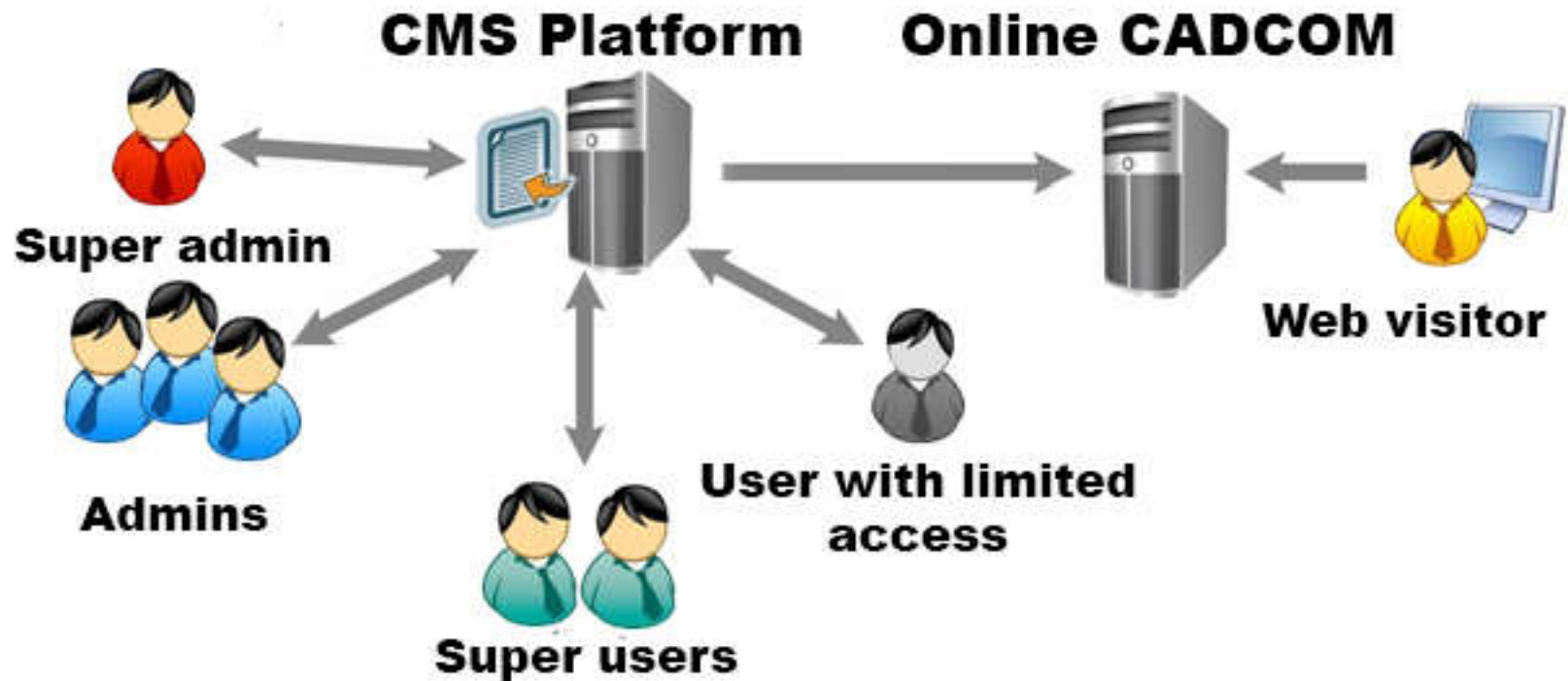
Ph. D. student in Department "Technology and management of
communication systems"

Supervisor: assoc. prof. Galia Marinova

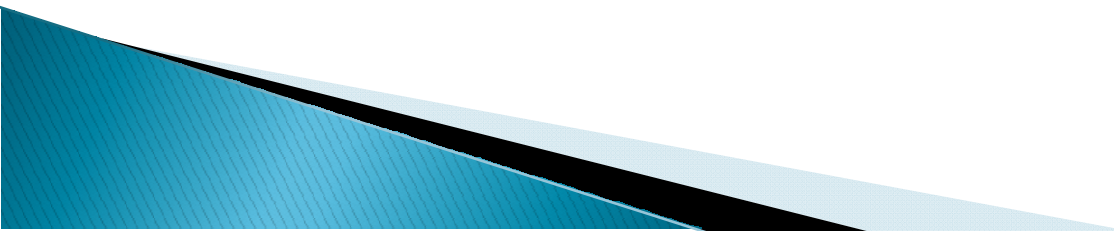
Software realization of the Online Platform for Computer-aided Design of Communication Circuits and Systems

Platform Structure

- ▶ Online Cadcom components and user level access.



Development of the platform

- ▶ Platform is developed using MVC Framework approach. Why?
 - ▶ The platform is complicated web application with different task solution problems
 - ▶ It is difficult to be implemented using traditional methods of programming
 - ▶ The huge file system of the platform need better way of optimization
 - ▶ The complexity of the tasks
- 

Source Code

```
D:\wamp\www\online-cadcom\app\views\fe\layout\default.blade.php • (online-cadcom) - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

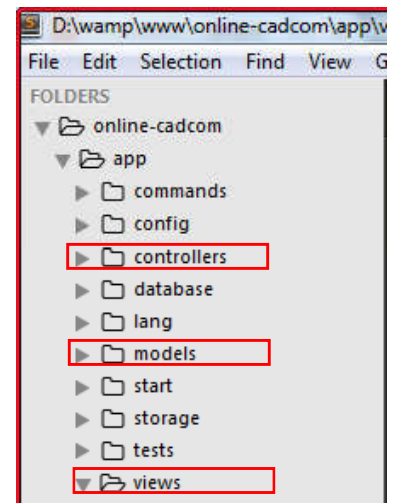
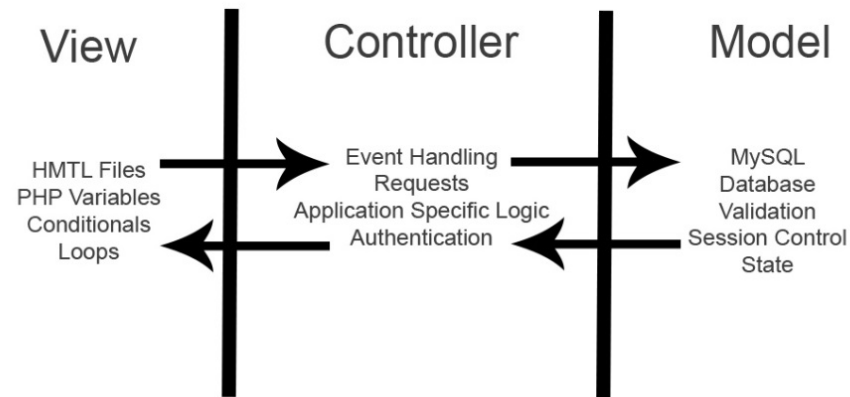
FOLDERS
online-cadcom
├── app
│   ├── commands
│   ├── config
│   ├── controllers
│   ├── database
│   ├── lang
│   ├── models
│   ├── start
│   ├── storage
│   ├── tests
│   └── views
│       ├── cms
│       ├── emails
│       └── fe
│           ├── home
│           └── layout
│               ├── default.blade.php
│               └── home.blade.php
├── bootstrap
├── public
├── vendor
├── .gitattributes
├── .gitignore
├── artisan
├── composer.json
├── composer.lock
├── CONTRIBUTING.md
├── phpunit.xml
├── readme.md
└── server.php

default.blade.php
1 <!DOCTYPE html>
2 <!--[if IE 9]> <html lang="en" class="ie9"> <![endif]-->
3 <!--[if IE 8]> <html lang="en" class="ie8"> <![endif]-->
4 <!--[if !IE]><!--
5 <html lang="en">
6 <!--<![endif]-->
7 <head>
8 <meta charset="utf-8">
9 <title>Online-CADCOM | Welcome</title>
10 <meta name="description" content="idea a Bootstrap-based, Responsive HTML5 Template">
11 <meta name="author" content="htmlcoder.me">
12 <!-- Mobile Meta -->
13 <meta name="viewport" content="width=device-width, initial-scale=1.0">
14 <!-- Web Fonts -->
15 <link href="http://fonts.googleapis.com/css?family=Open+Sans:400italic,700italic,400,700,300&subset=latin,latin-ext" rel="stylesheet" type="text/css">
16 <link href="http://fonts.googleapis.com/css?family=PT+Serif" rel="stylesheet" type="text/css">
17 <!-- Bootstrap core CSS -->
18 <link href="assets/css/bootstrap/css/bootstrap.css" rel="stylesheet">
19 <!-- Font Awesome CSS -->
20 <link href="assets/css/fonts/font-awesome/css/font-awesome.css" rel="stylesheet">
21 <!-- Fontello CSS -->
22 <link href="assets/css/fonts/fontello/css/fontello.css" rel="stylesheet">
23 <!-- Plugins -->
24 <link href="assets/css/plugins/magnific-popup/magnific-popup.css" rel="stylesheet">
25 <link href="assets/css/animations.css" rel="stylesheet">
26 <link href="assets/css/plugins/owl-carousel/owl.carousel.css" rel="stylesheet">
27 <!-- idea core CSS file -->
28 <link href="assets/css/style.css" rel="stylesheet">
29 <!-- Color Scheme (in order to change the color scheme, replace the red.css with the color scheme that you prefer)-->
30 <link href="assets/css/skins/red.css" rel="stylesheet">
31 <!-- Custom CSS -->
32 <link href="assets/css/custom.css" rel="stylesheet">
33
34 <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->
35 <!--[if lt IE 9]>
36 <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
37 <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
38 <![endif]-->
39 </head>
40 <body class="no-trans">
41 <div class="scrollToTop"><i class="icon-up-open-big"></i></div>
42
43 @yield('content')
44
45 <!-- Jquery and Bootstrap core js files -->
46 <script type="text/javascript" src="plugins/jquery.js"></script>
47 <script type="text/javascript" src="bootstrap/js/bootstrap.min.js"></script>
```

MVC Approach

- ▶ MVC Framework Architecture implemented in platform

Online CADCOM MVC Framework Architecture



Front End

Welcome to Online-CADCOM

Online assisted Platform for Computer-aided design in communications

Menu

- HOME
- PORTALS
- STANDARDS
- KNOWLEDGE BASE
- ECONOMICAL ESTIMATION
- OUTCOME TO PROTOTYPE
- LINKS TO OPTIMIZATION TOOLS
- CONTACT

Panel 1



ANTENNA

ANALOG

POWER SUPPLY

RF
AND MICROWAVE

INTERFACE
ADC/DAC

AUDIO

DIGITAL

Panel 2



PCB DESIGN

ELECTRIC
INSTALLATION

ELEMENTS

NANO
TECHNOLOGY

OUTCOME TO
PROTOTYPE:
FPGA/CPLD
USRPS
ARDUINO

Welcome to Online-CADCOM

Online assisted Platform for Computer-aided design in communications

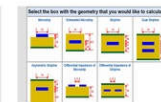
Menu

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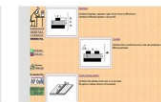
PCB Design



SATURN PCB DESIGN TOOLKIT



TECHNIK



SELEKTRONIK



WORDPRESS



EMCLAB



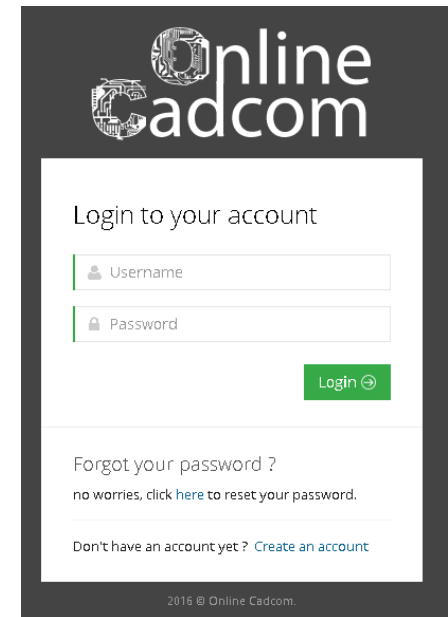
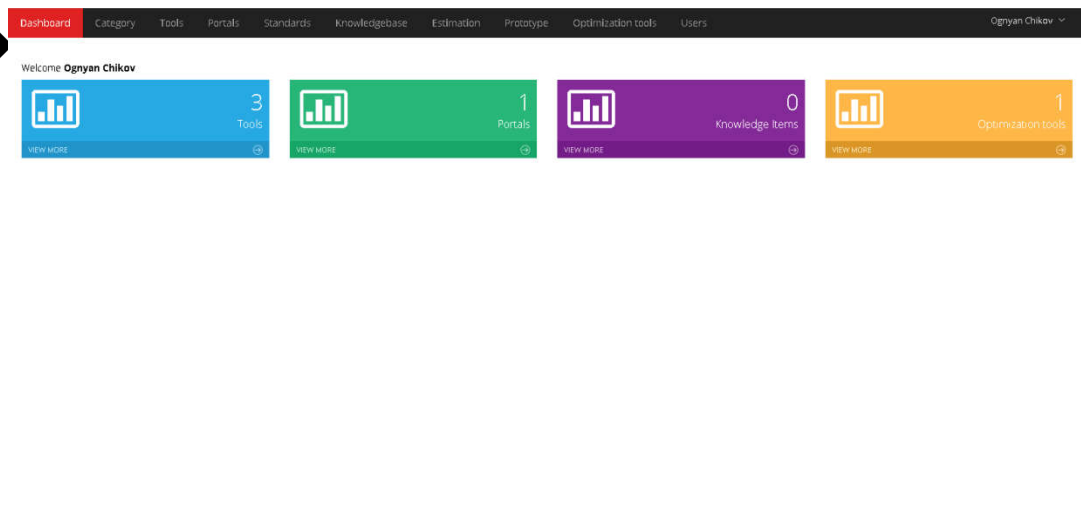
TI PCB THERMAL CALCULATOR



EEWEB

Content Management System

- ▶ User Access Control for Security
- ▶ Dashboard for easy navigation
- ▶ Responsive Design
- ▶ Clear design and easy to navigate menus



Content Management System

Dashboard **Category** Tools Portals Standards Knowledgebase Estimation Prototype Optimization tools Users Ognyan Chikov

Category

+ Add new

Category Name	Edit
Category 1	Edit Delete
Cat 1.1.	Edit Delete
Cat 1.2	Edit Delete
Cat 1.1.1	Edit Delete
Category 2	Edit Delete
Cat 2.1	Edit Delete
Category 3	Edit Delete

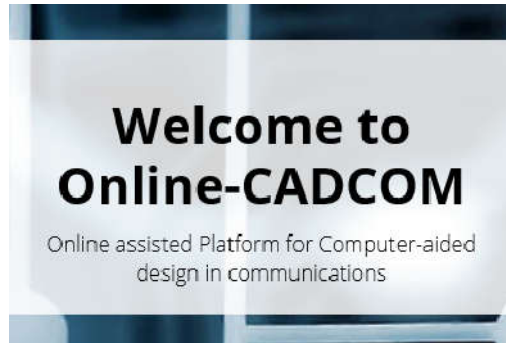
Dashboard Category **Tools** Portals Standards Knowledgebase Estimation Prototype Optimization tools Users Ognyan Chikov

Tools

+ Add new

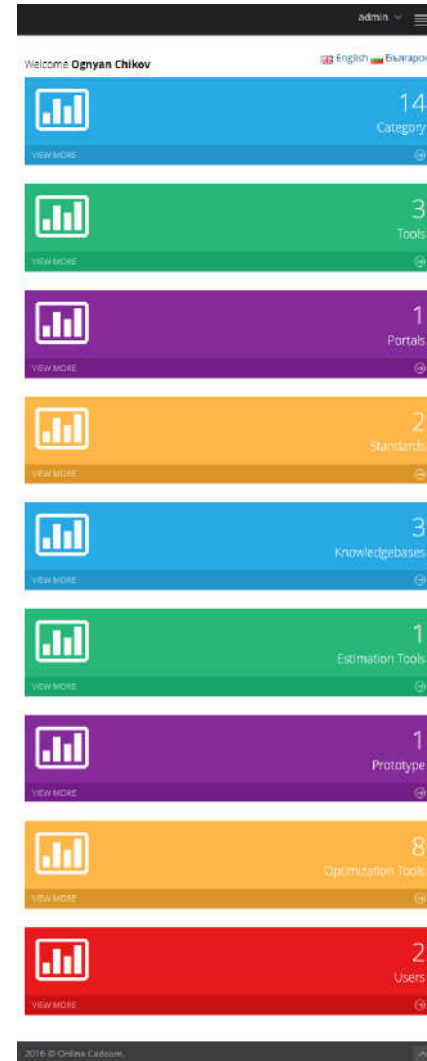
Type of Online CAD tool	Tool Category	Functions	Edit
sdfsdf	Cat 1.1.	sdf	Show Edit Delete
fucking test again	Category 1		Show Edit Delete
dsfsdfsdf	Category 1	sdf	Show Edit Delete

Responsive Design

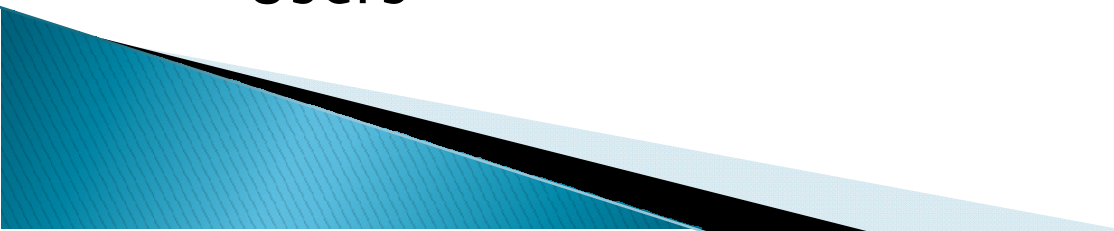


Menu

- HOME >
- PORTALS >
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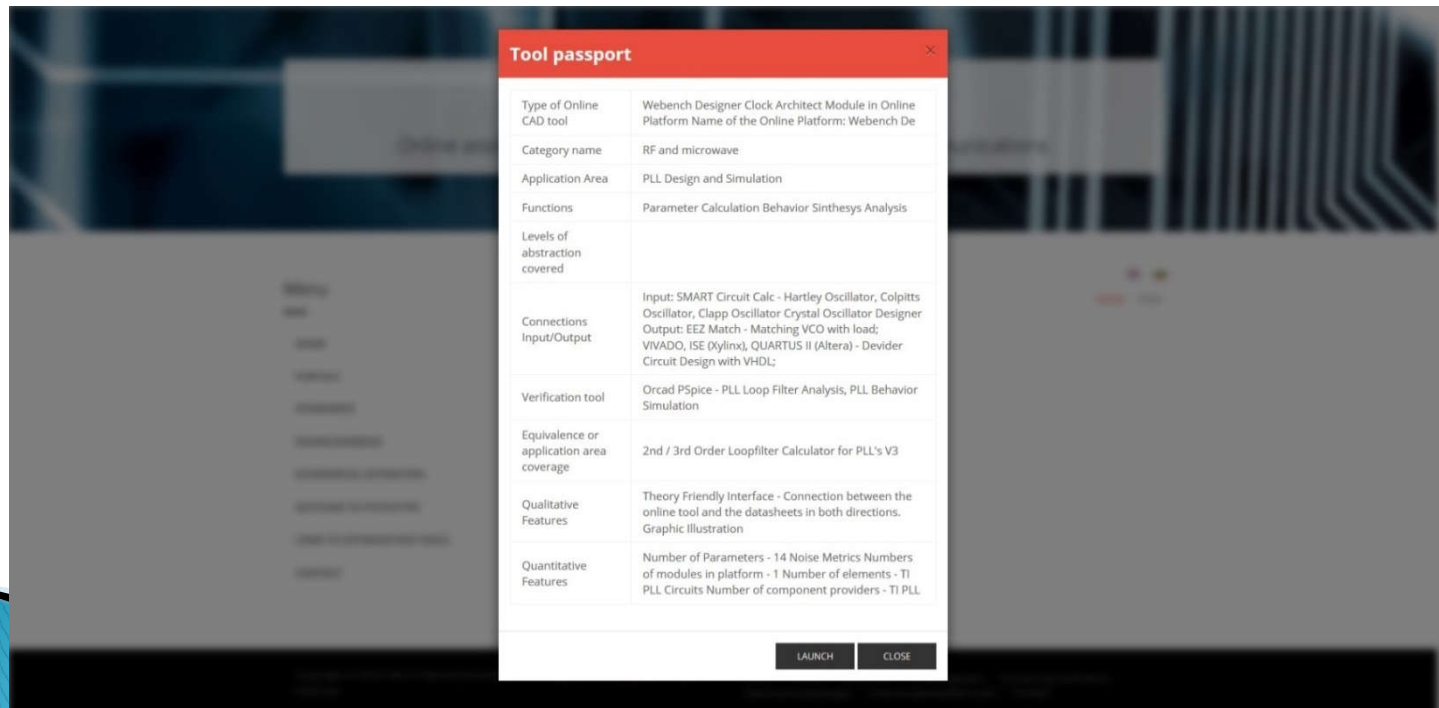


Content Development

- ▶ The platform has large amount of content, structured and divided in the following categories:
 - TOOLS;
 - Portals;
 - Standards
 - Knowledgebase
 - Estimation
 - Prototype
 - Optimization Tools
 - Users
- 

Content Development

- ▶ Designed to integrate more than 250 online tools that are tested, selected and provided by unified passports, allowing solving problems of design in telecommunications.



Thank you!

