

## Andrea Comacchio

Master's degree in Electronic Engineering

- ▶ 27/03/1995
- ▶ Italian

## Skills

### Matlab

### Simulink/Plecs

### Spice

### Cadence

### Java

### VHDL

### LaTeX

### Photoshop/Lightroom

### Lab Experience

Italian L1

English B2

## Biography

Throughout my student career I've always thought about the object of my study not as an end point, but as a foundation for what was coming next. Always looking to expand my knowledge and to learn new skills, not only for what didactics concerns: I managed to turn my dream of being a touring musician in reality with determination and team work, and I turned my passion for photography into a job by being hired as live-photographer for many music-festivals in Veneto. Passionate about the DIY for what analog audio signal processing concerns, I successfully designed and assembled several guitar effects. With my last years of Master's school I started really appreciating the satisfaction in designing and engineering new devices and in solving new problems. I am looking forward to start learning a new job and to exploit my knowledge for optimal engineering results.

## Work experience

### Thesis student

11/2020 - today

Department of Information Engineering (Supervisor: Prof. Paolo Mattavelli)  
University of Padova/Socomec group

I had the pleasure to study, in collaboration with Socomec group of Sicon s.r.l., a new control architecture for dc/ac and dc/dc converters. I began the work of thesis with a study of the state-of-the-art looking for certain characteristics between several architecture possibilities. A particular PWM solution was then chosen and analysed for its analog-like performance in its digital implementation in terms of dynamic response, the "Dual-Edge" PWM. A new synchronization system with the sampling clock was designed in order to make the Dual-Edge DPWM work in a multi-loop control system. Once the existing solution was understood and tested experimentally, some changes in the design were proposed in order for the derivative action of the control loop to be performed directly by the modulation system, so that the noise amplification, typical of the digital derivative of the PID, was bypassed.

### Live-Music Photographer

2018 - today

Freelance

I started taking photos to add more value to my travelling experiences in 2015. With dedication and little investments my skills in photo-editing and in photography slowly grew up, to the point that someone offered me a payment for my live-music photography. I worked for Curtarock festival, Venezia Hardcore festival, Home festival and many more live shows.

### Guitarist/Music production

2013 - 2019

As A Conceit

In parallel with my university career, I've been carrying on my musician activities with the band "As A Conceit". I played electric guitar and I was the main music writer of the band. Me and my band mates have always looked at our band not only as an expression of creativity, but also as a business: there are many aspects to take care of other than music, such as graphics, social media management, product placement, reinvestments, live performances, merchandising, advertisement targeting and deadlines. We managed to publish 2 albums and 3 singles, to tour Europe twice and Russia once, to perform 100+ live shows in Italy and to get 1 million+ streams on Spotify. In 2019 we broke up to begin a new music project that will be published in the near future.

## Interests

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- ▶ Guitarist/Music production
- ▶ DIY
- ▶ Rock Climbing
- ▶ Travelling
- ▶ Photography

## Education

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10/2018 - 07/2021

### Electronic Engineering (M.Sc.)

University of Padova

*Power Electronics ■ Analog Electronics design ■ Integrated circuits ■ Digital Signal Processing ■ Electronic Measurements ■ Electromagnetic Compatibility ■ Microelectronics*

**Master's thesis:** „Innovative DPWM Architecture for High-Switching Frequency Power Converters “.

10/2014 - 10/2018

### Electronic Engineering (B.Sc.)

University of Padova

*Electronics Fundamentals ■ Data and Algorithms ■ Signals and Systems ■ Foundations of Computer Science*

Bachelor's thesis: „Design of an Audio Power Amplifier“.

09/2008 - 07/2014

### Diploma

Liceo Scientifico Marcantonio Flaminio, Vittorio Veneto

3rd July 2021

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