

The QFT Control Toolbox

<http://codypower.com>

--QFTCT-- for Matlab

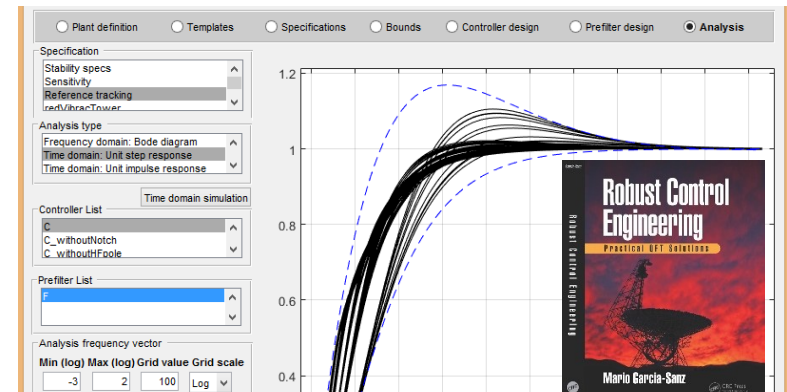
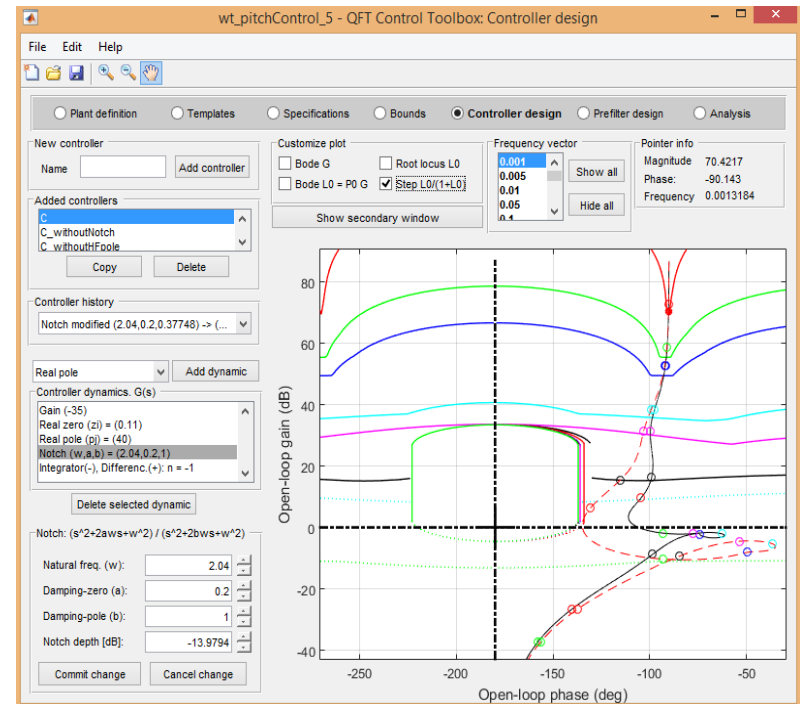
Many of our university customers came to us with some of the following teaching/research issues:

1. Our students demand more **control engineering courses** that deal with real-world applications
2. In the first introductory control courses we need to add more practical design techniques that deal with **real-world challenging problems**
3. We need to offer more **professional design tools** used by industry to open the field to our students
4. And reduce **time** needed to learn these concepts
5. To train the best future **Engineer Leaders**.

*The quality, reliability and expected life of many products depend on the **control system**. You can use our **QFT Control Toolbox** to teach how to **design** many industrial solutions.*

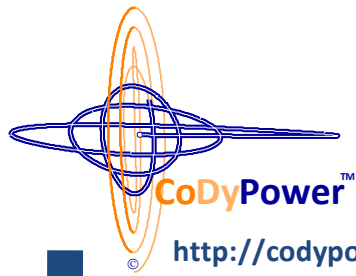
*We've applied our **QFT Control Toolbox** to many **commercial solutions**, including satellites, wind turbines, water treatment plants, radio telescopes: NASA-JPL, ESA-ESTEC, NRAO-GBT, AFIT, Sener, Gamesa, MT, etc .*

We offer support with: [Control Books], [QFT Control Toolbox], [Training Courses] & [Consulting Projects]



CoDyPower is an innovation consulting firm devoted to **Control**, **Dynamics** and **Power** engineering solutions.

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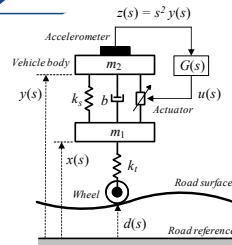
How the QFT Control Toolbox and books can positively impact your Engineering Programs?

In the **Fundamentals of Control Courses** with the QFTCT

You can offer some special real-world **projects** at the end of the semester.

See some of our cases:

- DC motor servo-control.
 - Vehicle active suspension system control.
 - DVD head position control.
 - Satellite control, etc.
- in references [1] and [2].

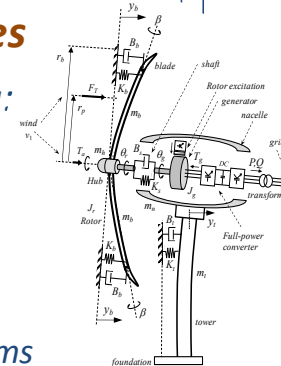


In new **Applied Control Courses** with the QFTCT, including:

1. Mathematical modeling
2. QFT robust control
3. Design of PID controllers
4. Solutions for unstable systems
5. Time-delay and non-minimum phase systems
6. Distributed parameter systems (DPS)
7. Control with different number of sensors and actuators, feedforward and cascade control
8. Multi-input multi-output (MIMO) control
9. Nonlinear robust control
10. Analog and digital implementation of controllers.

With over 50 real-world case studies.

All developed in our references [1] and [2].



In **Research on Advanced Control** with the QFTCT

Using its open possibilities:

Defining plants with **“external m.files”**

and special performance options and bounds with the **“defined by user specs”**

for PhD, Master & Senior students,

to deal with advanced MIMO, Nonlinear plants...

References:

[1]. Mario Garcia-Sanz, "Robust Control Engineering: practical QFT solutions", CRC Press, 2017.

[2]. Mario Garcia-Sanz and Constantine H. Houpis, "Wind Energy Systems: Control Engineering Design", CRC Press, 2012.