

Proposal for the online course on Smart tools for on-line quality control

Teacher: Prof Daniel Willemann

Total hrs: 24

Target: Postgraduate research students

Weeks: 6

Period: start 2nd Nov., end 7th Dec.

Lecture: 13h total

Seminars/workshops: 11h total

N' students: 20-30

Assessment: Final presentation 10 min + 5 min feedback and questions

Coursework: to be performed during workshops (Seminars - 10 min + 5 min presentations)

Lecture content:

Week 1. Lecture: Shearography Fundamentals (4h)

Week 2. Lecture: Optics basics (4h)

Week 3. Lecture: Optomechanical design (4h)

Week 4. After Seminars: Shearography Discussions / Doubts (0,5h)

Week 5. After Seminars: Shearography Discussions / Doubts (0,5h)

Week 6. Final Remarks (0,5h)

Seminars/workshops content:

Week 1. --

Week 2. --

Week 3. --

Week 4. Solutions for AM Inspection: How shearography can be applied in AMQC*? (3,5h)

Week 5. Definitions of an optomechanical shearography setup to solve at least one of the problems addressed during the seminar of Week 4 (3,5h)

Week 6. Final Project Presentations (3,5h) + Final Remarks (0,5h)

	Week 1		Week 2		Week 3		Week 4		Week 5		Week 6	
	Day1	Day2	Day1	Day2	Day1	Day2	Day1	Day2	Day1	Day2	Day1	Day2
Lecture	2h	2h	2h	2h	2h	2h		0,5h	0,5h	0,5h		0,5h
Seminar							2h	1,5h	1,5h	1,5h	2h	1,5h

- Seminar schedule estimated on 15 pairs of students with 10 min + 5 min presentations.

* AMQC – Additive Manufacturing Quality Control