



## Zagreb Corrosion Summer School

Online, June-July 2021

**Organized by Faculty of Chemical Engineering and Technology and Faculty of Mechanical Engineering and Naval Architecture University of Zagreb and Croatian Society for Materials Protection**

**Purpose:** Corrosion summer school is intended for both PhD students and practitioners from industry who want to learn more about corrosion and corrosion protection. Lecturers will present theoretical background and practical experience on selected corrosion issues.

**Lecturers:** Prof. Dr. Sanja Martinez, Prof. Dr. Vesna Alar, Assoc. Prof. Dr. Helena Otmacic Curkovic, Assist. Prof. Ivan Stojanovic, Assist. Prof. Vinko Simunovic, Dajana Mikic Mag. Appl. Chem , Ines Šoljić, Mag. Appl. Chem. Angela Kapitanović, Marin Kurtela Mag. Ing. Aeroing.

**Place:** Online

**Date:** 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup>, 30<sup>th</sup> June and 7<sup>th</sup> July 2021.

Participants can choose between attending only selected one day courses or complete summer school program.

**For PhD students:** 1 day participation fee is 100€ (tax included), while for each additional day fee is reduced by 5%. Complete summer school attendance fee is 400€ (tax included)

**For other participants:** 1 day participation fee is 200€ (tax included), while for each additional day fee is reduced by 5%. Complete summer school attendance fee is 800€ (tax included)

**Important dates:**

Course dates: 09/06/2021 – 07/07/2021

Deadline for application: 28/05/2021

Payment due by: 03/06/2021

**Contact:**

e-mail: [recorr@fkit.hr](mailto:recorr@fkit.hr)

web page: [www.recorr.eu/zagcorr](http://www.recorr.eu/zagcorr)

Ph. D. students can obtain certificate with awarded **2.5 ECTS points**. After each lecture day students will receive daily assessments, activities or knowledge checks. The tasks for all topics should be successfully completed within the week in order to gain ECTS points.

	1 <sup>st</sup> day (09/06)	2 <sup>nd</sup> day (16/06)	3 <sup>rd</sup> day (23/06)	4 <sup>th</sup> day (30/06)	5 <sup>th</sup> day (07/07)
	CORROSION BASICS AND CORROSION MONITORING	CORROSION INHIBITORS	CATHODIC PROTECTION	ORGANIC COATINGS	STAINLESS STEEL
9:00-10:30	Corrosion Basics	Corrosion Inhibitor Basics	Cathodic Protection General Principles	Organic Coating Basics	<b>Stainless Steel Basics</b> Introduction to Grades, Properties and Corrosion Resistance, Forms of Corrosion on Stainless Steels
10:30-11:00	<i>Break</i>				
11:00-12:00	<b>Case Studies</b> Failure Analyses Examples	<b>Case Studies</b> Examples of Corrosion Inhibitor Applications	<b>Case Studies</b> CP Measurement Techniques and Equipment, Field Experience	<b>Case Studies</b> Test Methods for Organic Coating Systems	<b>Case Study</b> Failure Analysis – Various Examples of Stainless Steel Corrosion Failures from Practice
12:00-12:30	<b>Practical Calculations</b> Corrosion Rate Calculations Reference Electrode Potential Calculations	<b>Practical Calculations</b> Calculation of Inhibitor Efficiency, Calculation of Inhibitor Consumption, Calculation of Inhibitor Synergy Factor	<b>Practical Calculations</b> Design of a Simple Galvanic and ICCP Systems Calculations Including Attenuation Equation		Selection and Application of Stainless Steels
12:30-13:30	<i>Break</i>				
13:30-15:00	<b>Workshop</b> Polarization Measurements (Tafel Method Polarization Resistance LPR Monitoring Probe, Cyclic polarization)	<b>Workshop</b> Polarization Measurement and EIS Applied to Inhibitors, Analysis of the Results and Inhibitor Mechanism	<b>Workshop</b>	<b>Workshop</b> Assessment of protective properties of organic coatings by EIS	<b>Workshop</b> Standardized Laboratory and Industrial Test Methods of Passivation and Corrosion resistance of Stainless Steels
15:00-15:30	Discussion				