

# Training course – EU – H2020 – FET

## Photonic Metaconcrete with Infrared Radiative Cooling capacity for Large Energy savings (MIRACLE)

April 26 – 28, 2023

TU Darmstadt

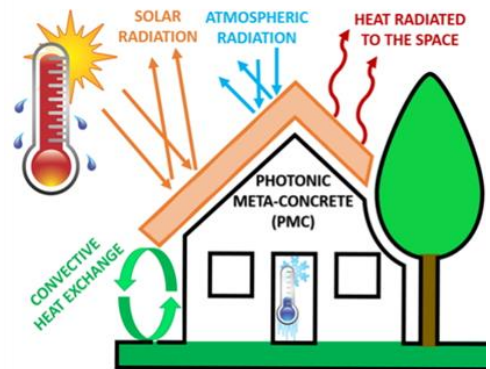


### Description:

The Institute of Construction and Building Materials (WiB) is organizing an open training course as part of the highly innovative H2020 MIRACLE project funded by the EU-H2020/FET Open program (Future Emerging Technologies).

The training course is covering one day reporting the actual results of the MIRACLE project, one day teaching the various modelling techniques employed in the project, and finally, half a day demonstrating concrete foam generation, foam surface preparation and experimental testing of photonic meta-concrete (PMC).

The lectures and demonstrations will be provided by the various partners of the MIRACLE project, which is coordinated by Dr. J. Dolado from the Center for Materials Physics (CFM-CSIC, Spain).



### Programme:

		MIRACLE Training Course		
		26. Apr 23	27. Apr 23	28. Apr 23
Training	Time	Wednesday	Thursday	Friday
MIRACLE Photonic Concrete	8.45 - 9.00	Arrival Lichtwiese campus	Modelling day	Experimental day
Morning Session 1	9.00 - 09:20	Welcome TUDa Prof. Koenders	Materials Modelling (CSIC)	Laboratory tour
	9.20 - 10:00	MIRACLE Update Dr. Dolado		
Morning Session 2	10.00 - 10.30	Coffee break	Coffee break	Coffee break
	10.30 - 11:30	Lecture WP1 CSIC	Radiative Cooling Modelling (UPNA)	Foam demo (Lab scale production)
	11.30 - 12.30	Lecture WP2 TUDa	Solar Cell Modelling (PolITO)	Foam surface demo (PMC)
	12.30 - 13.30	Lunch break	Lunch break	Lunch break
Afternoon Session 1	13.30 - 14.30	Lecture WP3 UPNA	Demos (CSIC/UPNA/PolITO)	Mechanical properties demo (PMC)
	14.30 - 15.30	Lecture WP4 TEC	TES Modelling (TUDa)	
	15.30 - 16.00	Coffee break	Coffee break	
Afternoon Session 2	16.00 - 17.00	Lecture WP5 KUL/PolITO	LCA Modelling (KUL)	
	17.00 - 18.00		Demos (TUDa/KUL)	
	18.00	BBQ	Dinner	

### Partners:



### Venue:

The training course will be provided in a hybrid format, where the actual course will take place at the TU Darmstadt and online streaming will be offered via the platform ZOOM. A link will be sent to every participant after registration.

## Fee:

Option	Registration fee [€]
Full training course participation (either online or at the TU Darmstadt)	150
One day participation (any day)	50
BBQ	50
Dinner	50

The fee includes training course participation, coffee break service, lunches and possible active participation at the demonstration sessions. The BBQ, and dinner can be selected optionally, but are highly recommended.

## Hotel information:

A short list of hotels in Darmstadt are:

Best Western Darmstadt (in the city center):

[https://www.bestwestern.com/en\\_US/book/hotels-in-darmstadt/best-western-hotel-darmstadt-mitte%C2%A0/propertyCode.95278.html](https://www.bestwestern.com/en_US/book/hotels-in-darmstadt/best-western-hotel-darmstadt-mitte%C2%A0/propertyCode.95278.html)

Welcome Hotel: (in the city center)

[www.welcome-hotels.com/welcomehotel-darmstadt/info/](http://www.welcome-hotels.com/welcomehotel-darmstadt/info/)

IntercityHotel Darmstadt: (next to Main train station):

[www.intercityhotel.com/hotels/alle-hotels/deutschland/darmstadt/intercityhotel-darmstadt](http://www.intercityhotel.com/hotels/alle-hotels/deutschland/darmstadt/intercityhotel-darmstadt)

## Airport shuttle to Darmstadt:

There is a direct bus service ([www.heagmobibus.de/de/airliner](http://www.heagmobibus.de/de/airliner)) from the airport to the Luisenplatz (main square) in Darmstadt center every 30 minutes. This is a yellow double decker bus. You can pay in the bus. It is about 9 euros for one single trip. At Frankfurt airport the bus leaves at Terminal 1 from bus-stop nr. 14 (Haltestelle 14 in German), and at Terminal 2 there is a bus stop just outside the terminal building. Once you come out of the building, it is a bit on the right-hand-side. This bus stop sign indicates "Air".

## Enrollment information:

You can register for the training course through the on-line registration form at the event page of the institute website via the following link: [https://www.wib.tu-darmstadt.de/wib\\_start/wib\\_events/wib\\_miracle/event\\_wib\\_miracle.en.jsp](https://www.wib.tu-darmstadt.de/wib_start/wib_events/wib_miracle/event_wib_miracle.en.jsp).

Institute of Construction and Building Materials

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### Summary

#### Technische Universität Darmstadt

Institute of Construction and Building Materials

### Course

Campus Lichtwiese, TU Darmstadt

### Information

Address: Franziska-Braun-Straße 3, 64287 Darmstadt



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT

Building:

L5|07

Room:

43 (tentative)

Online:

ZOOM – Virtual Room

Language:

English

