

'The BIG Questions' Lecture Series



future ocean
KIEL MARINE SCIENCES
INTEGRATED SCHOOL OF OCEAN SCIENCES

BLUE is the new GREEN - How can we reshape the way our future coastlines look and function?

Dr. Shimrit Perkol-Finkel, CEO and Chief Scientist

ECOncrete Tech LTD and SeArc - Ecological Marine Consulting LTD, Tel-Aviv, Israel

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With two-thirds of the human population concentrated around coastlines, growing threats from sea level rise and increased storminess, accelerated coastal development and changes to natural coastlines are inevitable. Anthropogenic changes to coastlines are one of the key reasons for loss of coastal habitats that significantly reduces ecosystem services provided by urban marine environments. While man-made coastal infrastructure such as seawalls or breakwaters add significant amounts of hard substrate for colonization by marine organisms, these structures do not support the natural species assemblages, and are often dominated by nuisance and invasive species. This is mainly due to design features related to steep slopes, low structural complexity, and high homogeneity, all of which are rarely found in natural habitats.

This seminar will present an approach that involves the planning, design and retrofitting of hard structures to create multifunctional "BLUE" Infrastructure using ecologically sensitive designs and construction technologies that enhance their ability to provide valuable ecosystem services. Future trends and potential implications will be discussed.

Dr. Perkol-Finkel holds a Ph.D. in Zoology from Tel-Aviv University, and conducted post-doctoral research as an EU Marie Curie Fellow at the University of Bologna in Italy. She is Founder and CEO of two marine consultancy companies implementing sustainable development of coastal infrastructures.

Venue: **GEOMAR, Westshore large conference room**
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