

## Special session in SMAR2015, Antalya

During the conference SMAR 2015 in Antalya, Turkey, a special session on “**shape memory alloys for civil constructions**” will be hold. The scope is on all type of alloys and the connected technologies which can be used in construction industry. Researchers will have a great opportunity to exchange views and new ideas with colleagues from all around the world.

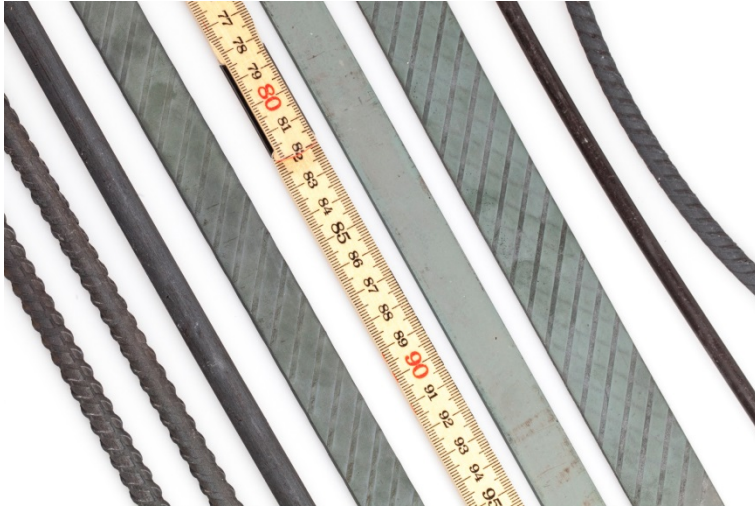
The organizers invite prospective authors to submit an abstract for a contribution to the special session. The papers will be treated (evaluation, presentation, publication) exactly the same as the papers in the other sessions of the conference. The submission deadline for the abstracts is also **30. November 2014**.

Topics:

1. Material developments of SMA's for civil structures
  - a. Nickel-titanium-based SMA's
  - b. Copper based SMA's
  - c. Iron based SMA's
2. Applications of SMA's for civil structures using
  - a. Damping capacity of SMA's
  - b. Superelasticity of SMA's
3. Applications in civil structures using memory effect of SMA's for tensioning applications as
  - a. Coupling, Fastener
  - b. Tendon
  - c. Concrete reinforcement
  - d. Near surface mounted reinforcement
  - e. Short fibers
4. Actuator applications of SMA's in civil structures
5. Active vibration control in civil structures using SMA's
6. Hybrid composites of shape memory alloys and plastics for civil structures
7. SMA's as sensors for health monitoring of civil structures

Dr. Christoph Czaderski

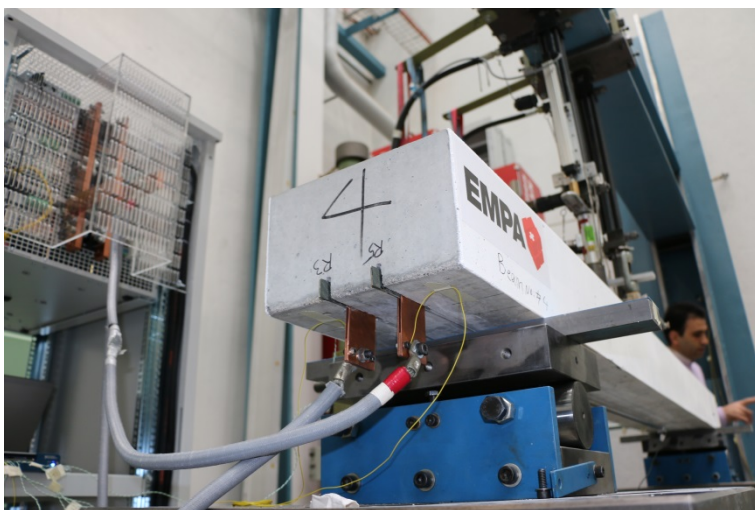
Dr. Moslem Shahverdi



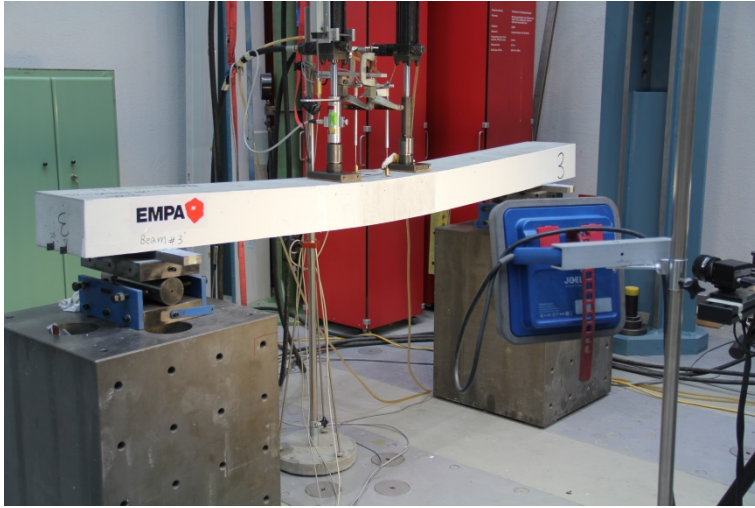
Empa's shape memory alloys for usage as concrete reinforcement the building industry: strips and bars, each with and without ribs.



Two strips of SMA embedded on bottom side of a concrete beam for strengthening application (near surface mounted reinforcement).



Activation of SMA strips by resistive heating.



A concrete beam strengthened by SMA under loading.