**Name:** Dr. Prateek Negi  
**Organization:** Indian Institute of Technology Delhi  
**Date of Report:** 23rd July 2019

**Conference Title:** 9th ECCOMAS Thematic conference on Smart Structures and Materials  
**Location of Conference:** Paris, France  
**Dates of Conference:** July 8-11, 2019

**What you learned:**  
My area of research is condition monitoring of underground structures and rocks using smart sensors. In this conference I came to know about other state-of-art sensing technologies which I can use in an integrated fashion with the techniques I have been using. The conference was entirely supporting interdisciplinary approaches. I played my role of exploring the applications of these smart technologies in the field of geotechnical engineering.

**People you met:**  
Prof. DJ Inman, Editor-in-Chief, Journal of Intelligent Material Systems and Structures (University of Michigan, USA)  
Prof. C. Lynch, Editor-in-Chief, Smart Materials and Structures (University of California Riverside, USA)  
Dr. Arnaud Deraemaeker, Associate Professor, Building Architecture and Town Planning (BATir), Brussels, Belgium  
Dr. Jing Rao, Humboldt Research Fellow, Technical University of Munich, Germany

**Main features of conference:**  
SMART2019 was the 9th edition on ECCOMAS thematic conference on smart structures and materials. It encouraged people from all over the world to present their work on applications of new smart technologies in the field of Energy and Engineering. I presented my paper in the Identification, Control and Structural Health Monitoring of Civil Structures which attracted lots of international audience. The conference was divided in 22 sessions covering basic research in the field of smart technologies to the application of such technologies in the field of civil engineering.

**Your comments on the conference:**  
The conference gave me an opportunity to hear Editor-in-Chief of three International Journals in the field of smart technologies. Europe has always played a pilot role for rest of the world in spreading science and technology. Being from a developing country, I had a wonderful experience in exploring how Civil engineering has played a crucial role in the development of European cities like Paris. People I met in the conference were very humble and helped me in developing new ideas for my future research work. I see myself in collaborating with some of them in near future.
Please attach short report (maximum 400 words) suitable for publication in the ISSMGE Bulletin:

The 9th ECCOMAS Thematic Conference on Smart Structures and Materials (SMART 2019) was held in Paris, at the Arts et Métiers - Ensam (Paris Campus). SMART 2019 aimed at providing a comprehensive forum for discussing current state of the art in the field of smart structures and materials as well as at developing future ideas on a multidisciplinary level. Daily two plenary lectures were planned by academic and industry experts. The three key lectures on smart structures were given by Prof. D.J Inman (Editor-in-Chief, Journal of Intelligent Material Systems and Structures, University of Michigan, USA), Prof. C. Lynch (Editor-in-Chief, Smart Materials and Structures, Dean Bourns College of Engineering, University of California Riverside, USA) and Prof. M. Ahmadian (Editor-in-Chief Journal of Vibration and Control, Director Center for Vehicle Systems & Safety, Virginia Tech Blacksburg, USA). The conference was classified into seven general topics from which three topics i.e. Smart structures, Health monitoring and Engineering applications were related to Civil engineering.

I presented a gist of my PhD work on application of piezo sensors in condition monitoring of underground structures. After my presentation I had a wonderful discussion with Dr. Deraemaeker who was the session chair. He showed some of his developed sensors which can be easily embedded in concrete for condition monitoring. We discussed its future application in monitoring of rocks. I met Dr. Jing Rao, from Munich and had a wonderful discussion on using ultrasonic bulk waves for flaw characterization.

As I am at a starting stage of my research career, this conference gave me an opportunity to present my work and meet academic and industry people. This has opened new avenues for me as well. I am very thankful to ISSMGE Foundation for awarding me the necessary travel grant to attend SMART2019 conference.
Photographs from Conference:

Me with Dr. Arnaud Deraemaeker after his presentation on damage indicators in tunnels

Me presenting my presentation on new application of piezoelectric sensors in health monitoring of rocks
Interactive coffee breaks