Amendment 3

Interrogator for Fiber Bragg Grating Distributed Sensing Arrays – Questions and Answers

Q8. What is the required range of the interrogator? Is it 10s, 100s, kms, 10s of km?

A8. The applicant needs to demonstrate the capability to interrogate at least 1000 gratings irrespective of the range. It should be noted however that we understand that 1000 gratings on a very short length of fiber close to the interrogator would be difficult to resolve

Q9. Is it a bonus feature to include capabilities such as distributed fiber sensing using Rayleigh scattering and/or SBS.

A9. No this in not a bonus feature

Q10. Is there value in the control and manipulation of the amplitude and phase of the optical interrogating signal for performance enhancement.

A10. There is value in providing this kind of control, however this is not a mandatory requirement

Q11. What kind of applications: nuclear power plant, plane, vehicle, dams, road, rail tracks, ship hull, pipeline, building?

A11. The interrogator should not be application specific

Q12. What kind of information is intended for extraction? Vibration, strain, temperature, stress, location of sensed action.

A12. Information is to include temperature and/or strain at sensed location.

Q13. Is there value in providing the s/w, algorithm for upstream data processing and feature extraction. (e.g. identification of a hull breach, aging of concrete retaining wall etc.)

A13. There is value in providing this data, however this is not a mandatory requirement.

Q14. Are we allowed to use current hardware and add to it new hardware/software?

A14. Yes, this can be done provided that the requested solution is reasonable in terms of the system dimensions. The size of the unit should be something that fits within a standard rackmount.

Q15. What is the expected final product? Commercial ready or prototype?

A15. As per the Challenge criteria, at the end for Phase 1 the firm must present proof of concept and at the end of Phase 2 the firm must deliver at minimum a functioning prototype.