

	Title of Entry	
1.1	Title of Sponsored Work	Hurricane and Tornado Damage assessment with the use of remotely sensed SAR and Thermal imagery
1.2	Name of TERI SAS Department/ Centre (s) involved	DNR
1.3	Type	Research Project
2.1	Sponsoring Agencies	Turkish Higher Education Council
2.2	Location of work/activity	India
3.1	List of partnering Institutions involved	Akdeniz University Antalya, Turkey
3.2	Lead Partner	Akdeniz University
4.1	Begin Date	30-10-2018
4.2	Completed or Ongoing	Completed
4.3	End Date	30-06-2019
5.1	Principal Investigator(s)-- Internal	Dr. Nithiyanandam Y.
5.2.	Principal Investigator(s)-- External	Dr Nusret Demir
5.3	Co-Principal Investigator(s) --Internal	
5.4.	Co-Principal Investigator(s) --External	
5.3	Associated Researcher(s)-- internal	Ms Pujasree Ms Jyoti
6.1	Amount Sanctioned	
6.2	Amount received	In kind
6.3	In Kind support	Travel support and daily allowance for students
7.1	Description of work and activities	It is also aimed to share the work with the world scientific community by presenting the study of scientific events that deal with pattern recognition in disaster management. To map the impact due to cyclone in Chennai during the study period.
7.2	Project Reach,	

	engagements and beneficiaries, if applicable	
8.1	List of Publications including dissemination through social media	
8.2	Links to Events page, if any	TBA
9.	Executive Summary and other documents	<p>Storms and tornados occur without human control and cause large-scale loss of life and property. They will be on a very short timeline and will not be stopped by people after they occur. For this reason, speed is an important factor in determining the damages that occur. In this regard, radar satellites are advantageous because they can capture data in all weather conditions. Within the scope of the project, India Chennai region was selected, which experienced a major flood disaster in November 2018. In this study, it is aimed to determine disaster losses by texture analysis on the image. Five different images were used to analyse the flood damages Backscatter values for radar images were analysed in all imagery. The scattering differences between before and after the disaster were calculated and statistically analysed. In both polarizations (VH and VV), the greater change in backscatter was chosen as regions that were modified to be greater than the 95% threshold of the entire histogram. The results are visualized in Google Earth Engine Cloud Platform.</p>