From: Mary Ann Weitnauer

To: Doug Young Date: August 04, 2016

Subject: Request for Info - File #0537-EX-PL-2016

Message:

Justification for # of transmitters submitted:

Reference #33405

In addition to evaluating the impact of propagation impairments, the applicant will also be evaluating the effects of self interference as a result of collisions resulting from many simultaneous tag transmissions when there are a large numbers of transmitters. Various methods of collision resolution will be tested such as different spreading codes, successive interference cancellation (SIC) (where SDR signal processing techniques are utilized to demodulate and remove interfering packets allowing additional packets to be demodulated), and multi-user Network MIMO (in which multiple receivers or gateways behave as multiple antennas in a large distributed array). Up to 200 transmitters will be used for these tests to evaluate interference mitigation in a realistic environment where transmitters are located where a wide variety of direct and reflected paths to the gateways occur. Since transmitters are simulating wireless sensor applications with infrequent transmissions, a large number are needed to generate sufficient interference.

From:

Mary Ann Weitnauer Professor and Senior Associate Chair School of Electrical and Computer Engineering 777 Atlantic Drive NW Atlanta, GA 30332-0250 Weitnauer, Mary A. office: 404-894-9482

office: 404-894-9482 cell: 404-697-1686

Above is response to this email. Please do not hesitate to communicate with me should you have any questions. Thank you.

Applicant: Georgia Institute of Technology

File Number: 0537-EX-PL-2016

Correspondence Reference Number: 33405

Date of Original Email: 08/04/2016

Submit a justification for the number of Cognosos Inc.-Transmitters requested.

The items indicated above must be submitted before processing can continue on the above referenced application.

Failure to provide the requested information within 30 days of 08/04/2016

may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

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From: oetech@fccsun27w.fcc.gov Sent: Thursday, August 4, 2016 8:49 AM

To: Weitnauer, Mary A.

Subject: Request for Info - File #0537-EX-PL-2016

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