

**ACTIVITY REPORTING FORM
ABEL VISTING SCHOLAR PROGRAM**

(Deadline for completion: see grant letter)

The progress report should include a brief (one page) activity report prepared by each mathematician supported, listing research in progress, papers published or in preprint form, students and post-doctoral fellows advised and dates spent at the host Institution.

After consideration by CDC, the intention is that this activity report and pictures will be made publicly available on the CDC web site.

1. Name of the Grantee: DIEM DANG HUAN
2. Country of origin of the Grantee: VIETNAM
3. Home institution of the Grantee: BACGIANG AGRICULTURE AND FORESTRY UNIVERSITY
4. Name of the institution visited: ILLINOIS INSTITUTE OF TECHNOLOGY
5. Name, position and e-mail address of the host: JINQIAO DUAN, Professor, duan@iit.edu
6. Dates of the research visit: 11-07 to 9-08, 2018

1. Activity report (at least 400 words) Listing research in progress, papers published or in preprint form

1.1. Time plan/ schedule for research stay Illinois (From 11/7/2018 to 09/8/2018)

+) 13/7 – 14/7: talk with Prof. Jinqiao Duan and look for references;

+) 15/7 – 04/8: research the project, work with Prof. Jinqiao Duan and attend his research seminars;

Title of the project: APPROXIMATE CONTROLLABILITY OF STOCHASTIC PARTIAL DIFFERENTIAL EQUATIONS DRIVEN BY FRACTIONAL BROWNIAN MOTION AND POISSON JUMPS

+) 05/8 – 08/8: write the results and finish the project.

1.2. The papers submitted

[1]. CONTROLLABILITY FOR IMPULSIVE NEUTRAL STOCHASTIC DELAY PARTIAL DIFFERENTIAL EQUATIONS DRIVEN BY FBM AND LEVY NOISE

[2]. APPROXIMATE CONTROLLABILITY OF SECOND-ORDER STOCHASTIC DIFFERENTIAL EQUATIONS DRIVEN BY FRACTIONAL BROWNIAN MOTION AND POISSON JUMPS

2. Students and post-doctoral fellows advised: Nil

3. Including a summary statement (1-2 sentences) of major outcome of research visit:

Controllability for impulsive neutral stochastic delay partial differential equations driven by fractional Brownian motion and Lévy noise is studied.

4. Planned follow up activities and future implications (2-3 sentences)

The study of the controllability for impulsive neutral stochastic delay partial differential equations driven by fractional Brownian motion and Lévy noise will be extended to the second-order stochastic differential equations driven by fractional Brownian motion and Poisson jumps with infinite delay in Hilbert space. Moreover, the approximate controllability results could be extended to study sufficient conditions for stochastic fractional differential equations driven by fractional Brownian motion and Poisson jumps with nonlocal conditions and infinite delay.