WIND SCIENCE AND ENGINEERING PH. D. PROGRAM (WDSE)

HISTORY

1987 – 97: The NSF funded CSU/TTU Cooperative Program in Wind Engineering which had Co-PIs from CE, ME, Chem E, Atmo Sc, Math, and Economics. Students under supervision of faculty took courses in different disciplines and met every two weeks to discuss research.

1998 – 02: We submitted proposal each year to NSF for IGERT funding for student Fellowship. The NSF proposal included a plan of Ph.D. curriculum for WISE; it was approved by NSF in 2003 for five-year.

2003 – 05: WiSE curriculum was reviewed by committees in Engineering, Arts & Sciences, and the Graduate School. The Board of Regents submitted the proposal to create a new multi-disciplinary Ph.D.

2005 – 07: Texas Higher Education Coordinating Board appointed an external committee of three faculty to review the curriculum; the committee visited Texas Tech for two days.

2007: The THECB approved the new Ph.D. degree in Wind Science and Engineering (denoted as WDSE). It has been reviewed by the Graduate School in 2008 and 2013.

GRADUATES

Over thirty students have graduated with the Ph.D. degree in Wind Science and Engineering as of today. These graduates are employed in academics, research institutions, consulting firms, and private companies. Their work spans a wide range of subject areas, from wind engineering, to risk management, to wind energy. Currently 12 students are enrolled in the program.

CURRICULUM

The curriculum has six required courses, one each in atmospheric sciences, wind engineering, economics, leadership and ethics, and two in statistics. The remaining courses are taken based on the specialty of dissertation research pursued by the student. The program is guided by an academic committee currently comprised of Daan Liang (Chair), Brian Ancell, Brad Ewing, Delong Zuo, and Kishor Mehta.

BENEFITS

This is one-of-a-kind multidisciplinary doctoral degree in the country with WIND as the main theme. Flexibility is provided to pursue research in energy, engineering, and science. At least two disciplines must be represented on student’s advisory committee.

The students are admitted with the advice and consent of the committee and potential advisor. They are internally funded during the first year with scholarships and/or fellowships. Currently, two students are on Presidential Fellowship (three years) and one on Mehta Fellowship (one year). We have also received Recruiting Scholarships from the Graduate School (two per year).

BARRIERS

- The program is administered by the Graduate School and coordinated by the NWI. Resources of colleges are not available
- It is difficult for faculty to receive credit for supervising the students and producing the graduates
- There is no staff support for managing the program
- There is no support for fund raising

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