# **Fulbright Scholar Program**



## Reference Report

Applicant should complete Parts I and III and then give this form to the referee with the project statement.

#### **PART I**

Name of Applicant	Name of Referee
Túlio Nogueira Bittencourt	Paulo Roberto do Lago Helene
Position	Position
Associate Professor	Full Professor
Department	Department
Structural and Geotechnical Engineering	Civil Construction Engineering
Institution	Institution
Polytechnical School at the University of São Paulo	Escola Politécnica da Universidade de São Paulo
City/Country	City/Country
São Paulo/Brazil	São Paulo/Brazil
Number of Months Required forProject: 4	

### **PROJECT SUMMARY**

(Detailed project statement should be given to the referee before Part II is completed.)

This project is related to the Fullbright Scholar Program with emphasis on advanced research on Self-Compacting Concrete (SCC). Proportioning techniques, as well as the characterization of the evolution of mechanical properties and deformability due to creep and shrinkage will be investigated.

The fundamental objective of the project is the study of the deformation of SCC structures and the properties and effect shat may affect this process, like shrinkage, creep and cracking. This study starts with a thorough review of the experimental results available in the literature and in the ACBM database. It is followed by the analysis of predictive models for the evolution of the material properties with respect to the microstructure and the environmental conditions (temperature, humidity, etc.). The capacity of such models to anticipate the real behavior of SCC structures will be evaluated back in Brazil in our laboratory and through monitoring of real structures.

#### **PART II**

The referee should attach a typed letter on institutional letterhead addressing the items below and return it with this form to the local Fulbright organization at the address provided. The reference must be written in or translated into English and must be received by the deadline indicated below. Applications cannot be reviewed without reference reports.

- 1. How long and in what capacity have you known the applicant?
- 2. Please discuss the applicant's qualifications and the merits of the proposal by commenting on the following:
  - (a) applicant's credentials, potential and record of academic or professional accomplishments
  - (b) significance of proposal to the field
  - (c) importance of project to home country
  - (d) relevance of applicant's previous research and training to proposed project
- 3. Please address the applicant's cross-cultural adaptability and flexibility.

	03/24/2006
Signature of Referee	Month/Day/Year

PART III
RETURN COMPLETED REPORT TO
Túlio N. Bittencourt (EPUSP)
NO LATER THAN March 24, 2006.