Test-Driven Global Software Development

Bikram Sengupta
Vibha Sinha
Satish Chandra

IBM India Research Lab

Sharath Sampath
Guru K. Prasad

IBM Global Services India
Precise Communication of Requirements: a Major Challenge in GSD

- Requirements/Interface Agreements are often imprecise
- Effective cross-team/organization communication difficult in GSD
- Discrepancies in understanding detected very late, often during integration
- Need for upfront investment in requirements and precise but lightweight behavioral models
Test-First GSD

- Use test cases as lightweight conveyors of requirements
- Writing test cases enforces rigorous thinking that flushes out the details in requirements
- Also, it leads to gaps in requirements (the main source of ambiguity) being identified and filled in
- Thus creating test cases for requirements/interface agreements should lead to less re-work later on
Future Goals

- Empirical Validation
- Tool Support
- Structured Requirements