## Centre for High Performance Computing 2020 National Conference



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## Artificial Techniques in Pharmaceuticals and Drug Discovery

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In spite of all the recent advances in biochemistry and several associated areas, pharmaceutical drug discovery is still notoriously difficult to do, with lives literally at stake. A typical drug interacts with 300 other enzymes and processes within the human body, and a drug has to pass with minimal disruptions to all of these processes in order to deemed safe. Nearly 90% of all targeted drugs fail in Phase 1 of the clinical trials, but today, with AI, we're finding ways to improve our chances of success. In some cases, AI can create designer molecules that are already screened for previous toxicity and hold the promise to drastically reduce the time to creation of new drugs. In this talk, I'll be giving a very brief overview of the various AI techniques that are currently being used today.

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