# Prof. Pushpak Bhattacharyya

## Distinguished Fellow, IIT Alumni Council's AI Forum

Prof. Pushpak Bhattacharyya stands as a towering figure in the field of **Artificial Intelligence** (**AI**) and Natural Language Processing (NLP), with a career marked by pioneering contributions, visionary *leadership*, and a steadfast commitment to the advancement of technology for societal good. As an eminent **Distinguished Fellow** of the IIT Alumni Council's **AI** Forum, his academic, *research*, and administrative excellence have propelled the forum's *vision* of making India a global leader in **AI**.

## Academic and Professional Journey

Prof. Bhattacharyya is a **Professor** at the Department of Computer Science and Engineering, IIT Bombay. He earned his B.Tech from IIT Kharagpur (Distinguished Alumnus Awardee, 2018), M.Tech from IIT Kanpur, and Ph.D. from IIT Bombay. He was Director of IIT Patna (2015–2021) and has served as the President of the Association for Computational Linguistics (ACL, 2016–17).

His global engagement includes *research* stints at MIT, Stanford, University Joseph Fouriere (France), and University of Texas at Houston, bringing a unique international perspective to Indian **AI** *research* and education.

## Research Impact and Innovations

Often hailed as the "Godfather of NLP in India," Prof. Bhattacharyya has transformed **AI** development in the nation. He heads the Center For Indian Language Technology (CFILT) at IIT Bombay—playing a central role in Indian Language NLP, Machine Translation, Word-Sense Disambiguation, Sentiment Analysis, and Psycholinguistics.

Highlights:

Authored over 350 *research* papers in leading journals and conferences.

Guided 300+ students at doctoral, masters, and undergraduate levels.

Spearheaded the creation of IndoWordNet, a multilingual lexical knowledge base.

Led innovative *research* on Multilingual Computation, Indian Language Neural Machine Translation, and Automatic Sarcasm Detection.

Authored influential textbooks and monographs, including 'Machine Translation', 'Investigations in Computational Sarcasm' (Springer), and 'Cognitively Inspired NLP' (Springer).

Executed major industry and government projects valued in tens of crores.

## Leadership and Contributions to AI Policy

Prof. Bhattacharyya's technical *leadership* extends beyond academia. He chaired the Reserve Bank of India's (RBI) landmark 'FREE-**AI**' initiative—Fostering Responsible and Ethical Enablement of **Artificial Intelligence**—bringing together stakeholders from Microsoft India, HDFC Bank, and government think tanks to draft ethical **AI** guidelines, especially in financial services.

As Chairman of the **AI** Standardization Committee (LITD 30) under the Bureau of Indian Standards (BIS), he has been instrumental in representing India at global platforms such as SC42/ISO in Berlin,

pushing forward standards for **AI** in healthcare, finance, and technology.

## Awards and Distinctions

Fellow of the National Academy of Engineering (2015)

Abdul Kalam National Fellow (2020) for outstanding medical NLP *research*

## Distinguished Alumnus, IIT Kharagpur (2018)

IBM Innovation Award, Yahoo Faculty Award, VNMM Award (IIT Roorkee), and P. K. Patwardhan Award for Technology Development (IIT Bombay)

Editor roles at the Journal of Natural Language Engineering (Cambridge University Press) and **AI** Magazine (AAAI Press)

## Vision as Distinguished Fellow

As a **Distinguished Fellow**, IIT Alumni Council's **AI** Forum, Prof. Bhattacharyya exemplifies the fusion of *research* rigor, societal awareness, and strategic foresight needed to establish India's *leadership* in **AI**. Under his thought *leadership*:

Key policy initiatives and frameworks for **AI** development and implementation in India have been energized and shaped.

Translational *research*—spanning academic labs, real-world applications, and products—has flourished, fostering startup and industry collaborations.

Standards for responsible, ethical, and inclusive **AI** have been established and disseminated nationally and globally.

## Enduring Legacy

Prof. Bhattacharyya's legacy is reflected in the vibrant ecosystem of Indian **AI** *research*, the global recognition of Indian language technology, and an ever-growing cadre of students, researchers, and young innovators who continue to benefit from his inspiration and mentorship. His *vision* and *leadership* as a **Distinguished Fellow** have been pivotal in defining the path for responsible, impactful **Artificial Intelligence** in India—and for the world.

Note: This comprehensive profile draws on authoritative sources, highlighting Prof. Bhattacharyya's remarkable journey, achievements, and the indelible mark he has made as **Distinguished Fellow**, IIT Alumni Council's **AI** Forum.