



Introductory Presentation on Karnataka AI Cell & AI initiatives

Friday, December 5, 2025

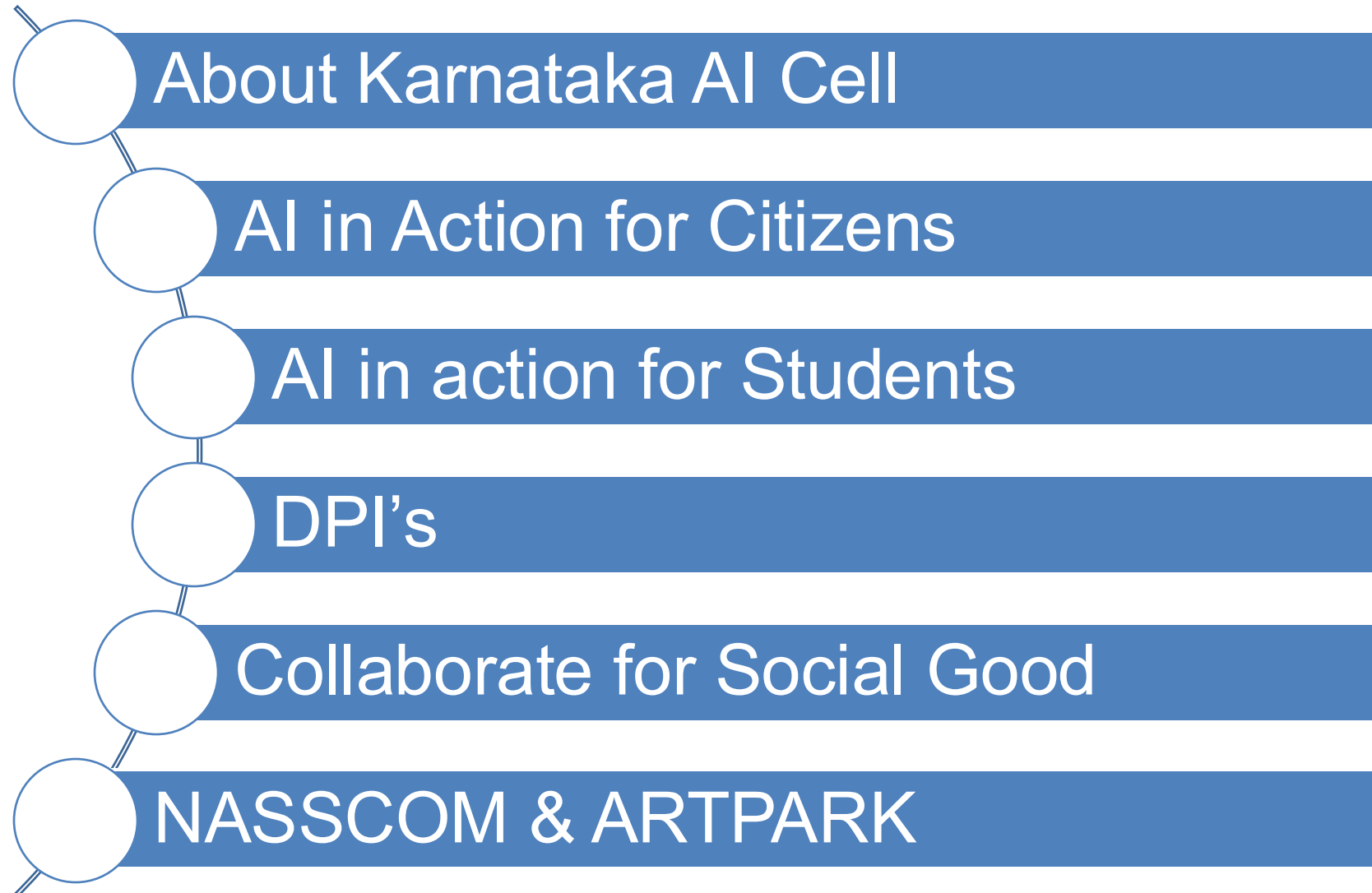


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Building Citizen Centric Solutions

- 1 Over 20 years of professional experience, working in both government and private industry sectors.
- 2 I am currently a Project Director at e-Governance, Government of Karnataka, where I have the privilege of leading the Artificial Intelligence cell.
- 3 My work centers on Artificial Intelligence, Machine Learning, Information Technology, data related initiatives such as Mahiti Kanaja & Open Data Platform (KODI)
 - Developed a facial recognition system for the Government of Karnataka's.
 - Architected chatbots to handle citizen inquiries efficiently.
- 4
 - Awarded with "Digital India Award 2022"
 - Doctoral research (Ph.D.) in AI and ML from DRDO
 - Google India selected me as an ambassador to conduct Machine Learning Crash Courses across the country





The Govt. of Karnataka is committed to fostering innovation & driving technological advancements which will drive the state's digital transformation initiatives. It recognizes the transformative potential of Artificial Intelligence (AI) and Machine Learning (ML) in enhancing **public service delivery to citizens (G2C)**, **policy-making (G2G)** and **operational efficiency (G2G)**



Advisory



Solution Development



Capacity Building



Collaborations

1 Strategic Recommendations

2 AI Guardrails & Ethical framework

3 GPU Compute & estimation

1 Technical Implementation

2 Model Development

1 Capacity building for employees to increase AI literacy

2 Setting up of Data Labs at 23 ITI's across Karnataka

1 Collaboration with Startups, Academia, Industries and Not for Profit Organizations

"Our goal is to change the way citizens interact with the government, we aim to leverage AI for citizens **well being**, assisted them in raising grievances – in Kannada language with voice and natural language"

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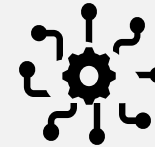
AI Powered Grievance Lodging & Redressal for citizens – IPGRS 2.0



Citizens can raise Grievances through WhatsApp in a **conversational manner**



Raise Grievances by talking in **Kannada** language



AI based Classification of lodged grievance & routing to designated department

Accuracy Upto 96%

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Saaramsha – AI powered Information Extraction tool

- Access myriad of documents issued under **Public Interest** in **one platform – Saaramsha** (Under Pilot phase)
- Summarize listed** documents and obtain simplified understanding in multiple languages (**Kannada & English**)

Government
Orders

Circulars /
Notifications

Policy
Documents

3

Livestock Identification Tool

- Identify cattle's based on facial features using AI based recognition capabilities – **Aadhaar for cattle**.
- Farmers can claim benefits in a seamless manner with rightful identification of cattle leading to accurate & targeted dissemination of **funds and subsidies**.

97% Accurate Identification (Closed Loop Testing)

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Kartavya – Karnataka Advanced Attendance Management System

Kartavya (KAAMS): A face-matching service to mark attendance using AI & GIS technology



Face match
as a
service

+



Geo-location of
the employee at
office premises

=



Kartavya

**+78,000
users**

Potential Expansion in FY 2025

15 + departments at onboarding phase, **covering ~ 1 Lakh staff.**

Applicability

- Caters to over 5 lakh government employees government offices across 90,000 offices.

Uniqueness

- Determines employees uniquely with **Aadhaar** authentication.
- **state's HRMS (employee) database.**
- Employee data stored in State Data Centre

Advanced Attendance Dashboard

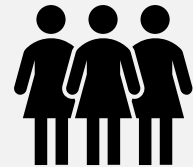
- Instant access to attendance records covering all levels (Secretariat, Head office, District office, taluka office & individual employee).
- View exceptional reports (< 8hrs or standard working hrs)

“With AI in Education Sector – We can reduce the drop out rates, monitor rates of absenteeism among students”

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AI Powered Group based Attendance Management System for Students in Schools

The Face Match as a Service, developed under KAIC is configurable to take group – based selfies using camera’s or handheld device in Classrooms.



Group based



*Face match
as a service*



*Attendance being
Marked for students*

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AI Powered Attendance Management System for Students in Hostels

- To eliminate instances of proxy marking in the hostels and bring rightful means to Identify and capture the presence of students.
- A web – based model of marking attendance is planned to be rolled out across **176 hostels** of welfare departments, covering **1 Lakh students**.

“With AI in Education Sector via Data Labs – We can drive large-scale AI skilling across Karnataka’s Tier-II/III regions”



Empowering Youth: *future-ready capabilities with hands on training, projects and creating an inclusive talent pipeline for AI-driven transformation across governance, industry, and public sector*



Decentralized Innovation: *Data & AI Labs will serve as decentralized innovation centers to foster AI awareness, experimentation, and ideation for governance, enabling future-ready thinking and grassroots public sector innovation.*



Capacity Building: *Data & AI labs may also serve as decentralized training hubs to build AI awareness and practical skills among government officials, empowering data-driven governance and enabling active participation in Karnataka’s AI transformation in governance and other priority areas.*

“Digital Public Infrastructure (DPI) has been described as an infrastructure-based approach that uses technology to achieve societal goals through an ecosystem (comprising technology, markets and governance) built in the public interest“

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Chatbot Building Platform

1. Pioneered a Chatbot building platforms

2. Scalable by Scale, Evolvable & Configurable

3. Modular by Design

**Applicable
Use cases**

**Karnataka Education Authority
Chatbot**

Citizen Interaction Layer deployed on govt. websites

*Knowledge base
manager
(Documents)*

*Integration Hubs
(manage API's &
connectors)*

*Prompts
Depository*

Chatbot building platform

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Language Translation tool

Providing **plug & play platforms** to other states & setting common standards. Translation service developed by KAIC



*MoU with
Bhashini*



*Collaboration with
India AI Mission for
National Innovation
Challenge*



*MoU with
Wadhawani
Foundation*



PUBLIC AFFAIRS CENTRE
Committed to good governance

**Training Program for Government Officials*

- Government of Karnataka in collaboration with NASSCOM established CoE in Data Science (DS) and Artificial Intelligence (AI) in July 2020.
- Being an enabler of the ecosystem, CoE DS & AI is playing a pivotal role in driving AI adoption at-scale. CoE DS & AI is helping the ecosystem realize the transformative potential of AI through the following initiatives.
 - **Innovate2Build**- The co-ideate and Co-Innovative platform enables enterprises augment their AI capabilities with innovators and academia
 - **Advance Acceleration Program**- For Growth AI Startups
 - **Knowledge Assets**- For driving AI adoption (Develop processes, frameworks & toolkits)
 - **Industry Playbooks**- An online repository of NASSCOM's AI research reports which tracks Industry trends & opportunities
 - **Faculty Development Program**- Skilling of faculties in the consultation industry
 - **AI for Social Good**- Bringing the power of AI towards environmental sustainability, economic and civic empowerment, health, and education. E.g. **KFD**, **KSPCB**, etc.
 - **AI Pathshala**- The Masterclass Series aims at connecting the AI Startup Community with Industry Leaders to learn various topics and navigate through a wide range of critical business decisions.

- ARTPARK @ IISc (AI & Robotics Technology Park) is a non-profit organization that fosters innovation and research in artificial intelligence (AI) and robotics. It serves as a **Centre of Excellence (CoE) for AI and Robotics**.
- ARTPARK's mission is to drive groundbreaking research and development in AI and robotics to create transformative solutions that address societal challenges in areas like industrial automation, mobility, agriculture, healthcare, and education.
- It is seed-funded by the Department of Science & Technology (DST), Government of India, under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), and the Government of Karnataka. It also partners with private sector companies like Google and Nvidia.
 - Project Vaani: A collaborative initiative with Google and IISc to build a massive open-source dataset of Indian languages and dialects for developing inclusive AI systems.
 - Aarogya Aarohan: A mobile application project for AI-based oral cancer screening designed for frontline health workers in resource-constrained settings.



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