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# SPEECH-BASED ACCESS TO AGRI MARKET PRICES

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**BHUBANESWAR:** Ever wished to know the latest market prices of vegetables, pulses or grains on the go? Well, a cutting-edge tech developed by IIT-Bhubaneswar will soon provide the data regarding prices of agricultural commodities to users in a convenient manner.

The one-of-its-kind speech-based access technology is designed by a consortium of 12 academic and research institutions including Odia scholars P K Sahu and N Murty. The ingenious idea focuses on developing an Odia system for providing speech-based access of agricultural commodity prices.

**"Before the completion of this project, I have planned to propose the idea to the state government for its implementation on a larger scale. It can be really beneficial to farmers who can sell their produce in the market directly**

**P K SAHU | PROFESSOR**

"The system focuses on India-specific prices only. Developed in different languages, the system provides current price of an agricultural commodity in a particular district. Thus, in order to find the commodity pricing, the user has to speak the district name followed by the name of the commodity," said Sahu.

"If the system fails to recognise the first time, it apologises and asks the user to repeat it. This process is repeated twice. If the app is not able to provide the info, it expresses inability to provide the information and exits with a message. On the contrary, if the system provides the information in the second or third attempt, it is considered as a success," he added.

Explaining the tech's methodology, Sahu stated that the application takes into account the pricing put up by the govt-run website Agmarket.gov.in. However, considering the website's lack of coverage to all markets in Odisha, the application tries to provide access to almost all 'mandis' of the state.

Sahu started developing the project in 2014 and completed it in 2018. One of the biggest challenges during the making of the application was compiling different accents of Odia language for the programme.

"Overcoming the subtleties in Odia language was one the biggest challenges. For instance a tomato is known as 'Patalghanta' in Sundergarh district. We used more than 1500 samples of different dialects in developing the program. Considering these differences, we have incorporated voice samples of more than 15 hours. This increased the application's success rate to about 96%," Sahu said.

## Simplifying Agricultural marketing

The one-of-its-kind speech-based access tech is designed by a consortium of 12 academic and research institutions. Odia scholars P K Sahu and N Murty have developed an Odia variant of the system

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However, like with any other tech, there are a few drawbacks. The programme's success rate can significantly degrade with background sounds during feedback. In real world trials, there is no control over the ambient noise, and the user is almost always on the field or road during use. Hence, building a system for this app was more challenging than any app meant to cater to the needs of users in a controlled environment like home or office.

Before the project is complete, Sahu has planned to propose the idea to the state government for its implementation on a larger scale.