

**Development of plant-based meat analogues from Manila  
tamarind (*Pithecellobium dulce*) seeds**

*A thesis submitted in part fulfillment of the requirements  
for the degree of*

***Doctor of Philosophy***

**Awanish Singh**

**Registration No. TZ203926 of 2023**



**School of Engineering**

**Department of Food Engineering and Technology**

**School of Engineering**

**Tezpur University, Tezpur-784028**

**Assam, India**

**October 2025**