

# IGIN: Indian Gradient In Nature's-Temperature

## Introduction

IGIN (symbol: °I) is a new temperature scale created to better reflect natural temperature gradients in the Indian subcontinent and similar climates. The goal of IGIN is to provide a relatable and intuitive measure of temperature that aligns more closely with human comfort and weather experience.

## Full Form

IGIN stands for **Indian Gradient In Nature's-Temperature**.

- **Indian:** Origin and inspiration are from Indian climates.
- **Gradient:** Focused on smooth, natural transitions in temperature.
- **In Nature's-Temperature:** Built to represent how temperature is felt and changes in nature.

## Conversion Formulas

### Celsius (°C) ⇒ IGIN (°I)

$$\text{IGIN} = (\text{Celsius} \times 0.5) + 16$$

### IGIN (°I) ⇒ Celsius (°C)

$$\text{Celsius} = (\text{IGIN} - 16) \times 2$$

### Fahrenheit (°F) ⇒ IGIN (°I)

$$\text{IGIN} = ((\text{Fahrenheit} - 32) \times 5/9) \times 0.5 + 16$$

### IGIN (°I) ⇒ Fahrenheit (°F)

$$\text{Fahrenheit} = (((\text{IGIN} - 16) \times 2) \times 9/5) + 32$$

### Kelvin (K) ⇒ IGIN (°I)

$$\text{IGIN} = ((\text{Kelvin} - 273.15) \times 0.5) + 16$$

### IGIN (°I) ⇒ Kelvin (K)

$$\text{Kelvin} = (((\text{IGIN} - 16) \times 2) + 273.15)$$

## Why Use IGIN?

- Better suited to climates with higher humidity and seasonal extremes.
- Reflects thermal comfort more naturally.
- Can aid in educational, environmental, and climate monitoring contexts.

## Example Values

| Celsius (°C) | IGIN (°I) |
|--------------|-----------|
| 0            | 16        |
| 10           | 21        |
| 25           | 28.5      |
| 30           | 31        |
| 40           | 36        |

## Usage

IGIN can be integrated into weather apps, smart thermometers, and environmental monitoring systems. It is particularly useful in regions experiencing drastic seasonal changes and for understanding human-centric temperature comfort.

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This document serves as the foundational research for IGIN. To implement or use IGIN in real-world systems, developers and researchers can refer to the formulas above.

IGIN Temprature is starts at 18<sup>th</sup> of October 2024 and became part of Vedafort at 24<sup>th</sup> of June 2025.

