General Championship Tech ’ 25

Contingent – AlgoRhythm

Overview:-

The script begins by **loading daily NIFTY 50 data** (from 2020 onward) and cleaning it (removing nulls and duplicates).

To reduce forward bias and eliminate market noise, **Empirical Mode Decomposition (EMD)** is applied using a custom EMD\_dealt LLM model.

1-Day Time Frame

Three smoothed EMAs are created:

* **Lips** (5-period EMA)
* **Teeth** (8-period EMA)
* **Jaw** (13-period EMA)

A buy signal is triggered when:  
close\_cleaned > lips > teeth > jaw

15-Min Time Frame

Adaptive SuperTrend Strategy It is a trend-following algorithm designed to dynamically adjust to changing market conditions. It enhances the classic SuperTrend indicator by modifying its sensitivity using market volatility, enabling smarter entries and exits.

Capital Allocation strategy:-

Alphas for each strategy is calculated on the basis of previous of returns generated by each strategy So this will be type of dynamic allocation techniques which generates better results.

Performance metrics:-

1-D time frame

Nifty-50

Sharpe - 1.9

Max Drawdown-13.2%

Calmar - 1.64

CAGR - 0.217

Sortino - 3.11

Win Rate - 58.3%

Bank-Nifty

Sharpe - 1.25

Max Drawdown- 16.3%

Calmar - 1.1

CAGR - 0.18

Sortino - 2.01

Win Rate - 51.3%

1-H time frame

Nifty 50

﻿﻿Sharpe - 2.3661

﻿﻿Max Drawown - 78.7L

﻿﻿Calmar - 3.1467

﻿﻿CAGR - 27.45%

﻿﻿Total Return - R3.67 Cr

﻿﻿Time in Drawdown - 8,041 hours

﻿﻿Win Rate - 32.94%

﻿﻿Trade Frequency - 364 trades

Bank-Nifty

﻿﻿Sharpe - 1.95

﻿﻿Max Drawdown - R16.2L

﻿﻿Calmar - 2.09

﻿﻿CAGR - 33.93%

﻿﻿Total Return - R4.79 Cr

﻿﻿Time in Drawdown - 8,272 hours

﻿﻿Win Rate - 28.84%

﻿﻿Trade Frequency - 384 trades

15-M time frame

Nifty-50

Sharpe - 2.06

Max Drawdown-11.41%

Calmar - 3.59

CAGR - 0.4097

Sortino - 2.55

Win Rate - 50.93%

Bank-Nifty

Sharpe - 1.76

Max Drawdown- 32.85%

Calmar - 3.16

CAGR - 0.1062

Sortino - 2.11

Win Rate - 50.45%

Insights:-

The Alligator indicator worked well with a few modifications like using EMA instead of SMA

After cleaning the closed prices the results were impacted drastically because now the trends identified were more reliable

But this data cleaning didn’t work well on 15 min data frame because its too small time frame to identify the difference between fake and real trend.

The MA crossover model captured strong intraday trends in Bank Nifty.

Thank you