EXPERIMENTS

These experiments were conducted using a 5-fold cross-validation strategy, employing an automated grid search to explore combinations of the following hyperparameters. In addition, the historical window size was set in 7 and the future window size for predictions were varied testing different configurations of these window sizes to assess the model's performance under diverse temporal conditions.

Exp 1: TW7+FTW1 (historical input 7+ forecast day 1)

Batch size	Layers	Neurons	lr	Patience	R2	RMSE
4	3	30	0,0001	10	0.85	0.09
8	**1**	**15**	**0,001**	**10**	**0.94**	**0.06**
10	2	45	0,001	100	0.78	0.11
16	1	15	0.001	50	0.77	0.12
32	3	5	0.001	100	0.71	0.13

Exp 2: TW7+FTW7 (historical input 7+ forecast day 7)

Batch size	Layers	Neurons	lr	Patience	R2	RMSE
4	1	30	0.0001	100	0.81	0.10
8	3	10	0.001	50	0.91	0.07
10	3	10	0.001	150	0.78	0.11
16	2	45	0.0001	50	0.59	0.15

Exp 4: TW7+FTW14 (historical input 7+ forecast day 14)

Batch size	Layers	Neurons	lr	Patience	R2	RMSE
4	3	20	0.001	150	0.57	0.16
8	1	10	0.001	100	0.66	0.14
10	1	35	0.001	150	0.63	0.15