

## Supplementary File

Table I

TFD Performance of Ten Methods When DT Is Used as A Base Classifier

Train	Test	Criteria	TaGN	RGAN	WGAN	SNGAN	CC	AkNN	SMOTE	ST	ADASYN	TaGAN
Jan.	Feb.	$F_1$	0.6034	0.6238	0.6188	0.6188	0.5162	0.6455	0.4431	0.6554	0.6376	<b>0.7034</b>
		$G_m$	0.7452	0.7868	0.7841	0.7457	0.7584	0.7657	0.7321	0.7182	0.8196	<b>0.8301</b>
Feb.	Mar.	$F_1$	0.7205	0.6087	0.6383	0.6320	0.5013	0.7805	0.5511	0.6907	0.6380	<b>0.8282</b>
		$G_m$	0.8456	0.8278	0.8529	0.8414	0.8916	0.8983	0.8483	0.8614	0.8760	<b>0.9013</b>
Mar.	Apr.	$F_1$	0.4963	0.4364	0.3687	0.4130	0.5317	0.3942	0.3739	0.3455	0.4436	<b>0.5549</b>
		$G_m$	0.6064	0.5839	0.5004	0.5448	<b>0.7680</b>	0.5258	0.5134	0.5986	0.5455	0.6963
Apr.	May.	$F_1$	0.8051	0.7805	0.8077	0.8065	0.0670	0.7722	0.0985	0.0608	0.0460	<b>0.9303</b>
		$G_m$	0.9107	0.8934	0.9143	0.9141	0.2581	0.9399	0.2575	0.1951	0.1756	<b>0.9566</b>
May.	Jun.	$F_1$	0.7838	0.7918	0.7624	0.8158	0.7229	<b>0.8740</b>	0.8321	0.8062	0.8035	0.8684
		$G_m$	0.8404	0.8477	0.8389	0.8688	0.9416	<b>0.9468</b>	0.8867	0.8628	0.8693	0.8987
Average value		$F_1$	0.6818	0.6482	0.6392	0.6572	0.4678	0.6933	0.4597	0.5117	0.5137	<b>0.7770</b>
		$G_m$	0.7897	0.7879	0.7781	0.7830	0.7235	0.8153	0.6476	0.6472	0.6572	<b>0.8566</b>
Average rank		$F_1$	5.2000	6.0000	6.2000	5.2000	7.8000	3.8000	7.4000	6.0000	6.0000	<b>1.2000</b>
		$G_m$	6.6000	6.4000	6.6000	6.6000	3.8000	3.6000	7.4000	7.0000	5.4000	<b>2.2000</b>

Table II

TFD Performance of Ten Methods When KNN Is Used as A Base Classifier

Train	Test	Criteria	TaGN	RGAN	WGAN	SNGAN	CC	AkNN	SMOTE	ST	ADASYN	TaGAN
Jan.	Feb.	$F_1$	0.7226	0.6848	0.6230	0.7655	0.6260	0.6919	0.6165	0.6212	0.5046	<b>0.7723</b>
		$G_m$	0.8059	0.8488	0.8263	0.7834	0.8547	0.8003	0.8516	0.8518	0.8506	<b>0.8975</b>
Feb.	Mar.	$F_1$	0.5796	0.5060	0.5052	0.5060	0.6009	0.6201	0.4632	0.6249	0.3918	<b>0.7415</b>
		$G_m$	0.6960	0.6748	0.6960	0.6748	<b>0.9094</b>	0.7766	0.7847	0.8037	0.8036	0.8214
Mar.	Apr.	$F_1$	0.4125	0.3502	0.4108	0.3347	0.4788	0.4878	0.2242	0.2873	0.1915	<b>0.6414</b>
		$G_m$	0.5337	0.5061	0.5348	0.4923	0.7191	0.6082	0.5285	0.5243	0.5228	<b>0.7205</b>
Apr.	May.	$F_1$	0.6119	0.6111	0.6024	0.6007	0.5858	0.6072	0.5257	0.5347	0.5436	<b>0.7594</b>
		$G_m$	0.8190	0.8117	0.8113	0.8027	<b>0.8987</b>	0.888	0.8325	0.8402	0.8383	0.8655
May.	Jun.	$F_1$	0.7808	0.7815	0.7815	0.7808	0.6332	0.7467	0.7761	0.7736	0.7246	<b>0.8831</b>
		$G_m$	0.8440	0.8365	0.8454	0.8589	0.9141	0.8865	0.8966	0.8963	0.8997	<b>0.9347</b>
Average value		$F_1$	0.6215	0.5867	0.5846	0.5975	0.5849	0.6307	0.5211	0.5683	0.4712	<b>0.7595</b>
		$G_m$	0.7397	0.7356	0.7428	0.7224	<b>0.8592</b>	0.7919	0.7788	0.7833	0.7830	0.8479
Average rank		$F_1$	3.6000	4.4000	5.4000	5.0000	6.0000	4.6000	8.6000	6.8000	9.4000	<b>1.0000</b>
		$G_m$	7.2000	8.4000	7.0000	9.2000	<b>1.6000</b>	5.2000	5.0000	4.4000	5.0000	<b>1.6000</b>