

Table 1: Accuracy of our method (TNAS-DCS) in terms of time and accuracy compared to state-of-the-art NAS methods. Approximate versions denoted as: (e) less epochs, (n) smaller network

Data	Method	GPU days	Accuracy
CIFAR-10	SETN	0.40	87.64 \pm 0.00
	GDAS	0.34	93.61 \pm 0.09
	PC-DARTS	0.17	93.66 \pm 0.17
	DrNAS	0.30	94.36 \pm 0.00
	MetaD2A	4.17	94.37 \pm 0.00
	TNAS-DCS	4.27	94.37 \pm 0.00
	TNAS-DCS (e)	0.36	94.37 \pm 0.00
CIFAR-100	SETN	0.73	59.09 \pm 0.24
	GDAS	0.64	70.70 \pm 0.30
	PC-DARTS	0.28	66.64 \pm 2.34
	DrNAS	0.45	73.51 \pm 0.00
	MetaD2A	4.17	73.51 \pm 0.00
	TNAS-DCS	4.27	73.51 \pm 0.00
	TNAS-DCS (e)	0.36	73.51 \pm 0.00
MNIST	SETN	0.87	99.69 \pm 0.04
	GDAS	0.76	99.64 \pm 0.04
	PC-DARTS	0.35	99.66 \pm 0.04
	DrNAS	0.57	99.59 \pm 0.02
	MetaD2A	2.50	99.71 \pm 0.02
	MetaD2A (e)	0.78	99.71 \pm 0.02
	MetaD2A (n)	0.78	99.71 \pm 0.02
	TNAS-DCS	2.52	99.78 \pm 0.02
	TNAS-DCS (e)	0.84	99.74 \pm 0.00
	TNAS-DCS (n)	0.84	99.80 \pm 0.00
Aircraft	SETN	0.46	44.84 \pm 3.96
	GDAS	0.46	53.52 \pm 0.48
	PC-DARTS	0.29	26.33 \pm 3.40
	DrNAS	0.65	46.08 \pm 7.00
	MetaD2A	4.19	58.43 \pm 0.72
	MetaD2A (e)	0.30	58.43 \pm 0.72
	MetaD2A (n)	0.30	58.43 \pm 0.72
	TNAS-DCS	4.26	59.69 \pm 0.59
	TNAS-DCS (e)	0.36	58.43 \pm 0.28
	TNAS-DCS (n)	0.36	59.51 \pm 0.43
Pets	SETN	0.35	25.17 \pm 1.68
	GDAS	0.33	24.02 \pm 2.75
	PC-DARTS	0.28	25.31 \pm 1.38
	DrNAS	0.31	26.73 \pm 2.61
	MetaD2A	4.19	39.76 \pm 0.72
	MetaD2A (e)	0.30	39.76 \pm 0.72
	MetaD2A (n)	0.30	39.76 \pm 3.54
	TNAS-DCS	4.26	43.22 \pm 0.61
	TNAS-DCS (e)	0.36	43.24 \pm 1.27
	TNAS-DCS[↓] (n)	0.36	43.24 \pm 0.00
SVHN	SETN	1.61	96.02 \pm 0.04
	GDAS	1.46	95.57 \pm 0.04
	PC-DARTS	0.99	95.40 \pm 0.04
	DrNAS	1.24	96.30 \pm 0.02
	MetaD2A	15.05	96.34 \pm 0.05
	MetaD2A (e)	1.20	96.34 \pm 0.05
	MetaD2A (n)	1.20	96.34 \pm 0.05
	TNAS-DCS	15.18	96.58 \pm 0.01
	TNAS-DCS (e)	1.26	96.57 \pm 0.00
	TNAS-DCS (n)	1.26	96.57 \pm 0.00