

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	<b>94.37</b> $\pm$ 0.00
	<b>TNAS-DCS</b>	4.27	<b>94.37</b> $\pm$ 0.00
	<b>TNAS-DCS (e)</b>	0.36	<b>94.37</b> $\pm$ 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	<b>73.51</b> $\pm$ 0.00
	MetaD2A	4.17	<b>73.51</b> $\pm$ 0.15
	<b>TNAS-DCS</b>	4.27	<b>73.51</b> $\pm$ 0.00
	<b>TNAS-DCS (e)</b>	0.36	<b>73.51</b> $\pm$ 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
	<b>TNAS-DCS</b>	2.52	99.78 $\pm$ 0.02
	<b>TNAS-DCS (e)</b>	0.84	99.74 $\pm$ 0.00
	<b>TNAS-DCS (n)</b>	0.84	<b>99.80</b> $\pm$ 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
	<b>TNAS-DCS</b>	4.26	<b>59.69</b> $\pm$ 0.59
	<b>TNAS-DCS (e)</b>	0.36	58.43 $\pm$ 0.28
	<b>TNAS-DCS (n)</b>	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
	<b>TNAS-DCS</b>	4.26	43.22 $\pm$ 0.61
	<b>TNAS-DCS (e)</b>	0.36	<b>43.24</b> $\pm$ 1.27
	<b>TNAS-DCS<sup>↓</sup> (n)</b>	0.36	<b>43.24</b> $\pm$ 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
	<b>TNAS-DCS</b>	15.18	<b>96.58</b> $\pm$ 0.01
	<b>TNAS-DCS (e)</b>	1.26	96.57 $\pm$ 0.00
	<b>TNAS-DCS (n)</b>	1.26	96.57 $\pm$ 0.00