Coding 7-bit data (septets) into octets

The message "hellohello" consists of 10 characters, called septets when represented by 7 bits each. These septets need to be transformed into octets for the SMS transfer.

h	**e**	**l**	**l**	**o**	**h**	**e**	**l**	**l**	**o**
104	101	108	108	111	104	101	108	108	111
1101000	1100101	1101100	1101100	1101111	1101000	1100101	1101100	1101100	1101111
1101000	110010 1	11011 00	1101 100	110 1111	11 01000	1 100101	1101100	1101100	110111 1

The first septet (h) is turned into an octet by adding the rightmost bit of the second septet. This bit is inserted to the left which yields 1 + 1101000 = 11101000 ("E8"). The rightmost bit of the second character is then consumed, so the second character (septet) needs two bits (yellow) of the third character to make an 8bit octet. This process goes on and on yielding the following octets:

1 1101000	00 110010	100 11011	1111 1101	01000 110	100101 11	1101100 1		1 1101100	110111
E8	32	9B	FD	46	97	D9		EC	37

The 9 octets from "hellohello" are E8 32 9B FD 46 97 D9 EC 37